AN INSTRUMENT FOR MEASURING READINESS FOR CURRICULUM CHANGE

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CHAPTER I

THE PROBLEM

The capable first grade teacher does not start Johnny on reading before Johnny is ready. If he is ready to read she does not hold him back. What is more important is that she can tell through reading readiness tests whether or not he is ready.

If Johnny's teacher should join a work group in curriculum development she, in all likelihood, would not receive similar consideration. The teacher or consultant would not know how ready the members of that class were for curriculum change. He has no test of readiness for curriculum change.

Purpose of the Study

It was believed that a test of readiness for curriculum change could be devised for use with teachers. Such a test could be used to score teacher groups on their readiness for curriculum change. The evidence provided by the scores could help the consultant plan appropriate experiences in curriculum change for the teacher groups.

The purpose, then, of this study was to devise a test of readiness for use with teacher groups which would yield a

valid and reliable score as a measure of readiness for curriculum change.

Need for the Study

Would a test of readiness for curriculum change serve a useful purpose? A reading readiness test serves a useful purpose because it helps the teacher effect an important learning in children. Is curriculum change an important learning for teachers? Would a test of readiness for curriculum change help a consultant effect such a learning?

Hollis L. Caswell found that active teacher participation in changing the curriculum was characteristic of modern attempts to develop the curriculum.[1] In the same year, a study of teacher-sensed problems in curriculum change found that teachers did not understand the principles and practices of curriculum change and that consultants often failed to take into account the readiness or lack of readiness of the teachers for curriculum change.[2] A teacher expressed this situation as follows: "Consultants seem to take it for granted that the teachers can begin right off /on curricu-

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[1] Hollis L. Caswell et al., Curriculum Improvement in Public School Systems, pp. 48-50. New York: Bureau of Publications, Teachers College, Columbia University, 1950.

[2] William A. Fullagar, "Some Teacher-Sensed Problems in Curriculum Improvement," pp. 35-36, Unpublished Doctor's project, Teachers College, Columbia University, 1950.

lum development activities7. You must start with teachers as if they were first graders."[3]

The teacher needs every possible aid in his struggle to meet the educational requirements of the modern world. If he is going to be asked to play an active part in changing the curriculum some effort should be made to find out where he stands in regard to curriculum change and work, with him, should proceed from there.

If a test of readiness for curriculum change will provide evidence on where teachers stand in regard to curriculum change the study will fulfill a need.

Definitions and Assumptions

What is meant by curriculum change?

For the purposes of this study curriculum change was understood to mean a fundamental change in the experiences of pupils. An example will clarify this.

In Washington Irving's description of the Sleepy Hollow school the place of justice in the curriculum is clearly indicated.

> On a fine, autumnal afternoon, Ichabod, in pensive mood sat enthroned on the lofty stool whence he usually watched all the concerns of his little literary realm. In his hand he swayed a ferule, that sceptre of despotic power; the birch of justice reposed on

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[3] *Ibid.*, p. 35.

> three nails, behind the throne, a constant terror to evil doers; while on the desk before him might be seen weapons, detected upon the persons of idle urchins; such as half-munched apples, popguns, whirligigs; fly-cages and whole legions of rampant little paper game-cocks. Apparently there had been some appalling act of justice recently inflicted, for his scholars were all busily intent upon their books, or slyly whispering behind them with one eye kept upon the master; and a kind of buzzing stillness reigned throughout the schoolroom.[4]

Justice here was a flailing birch on the back of an evil-doer; an experience for the pupils.

Now if Ichabod Crane would dispose of the birch with the kind of justice that it implied and would replace it with a better kind of justice he would have changed the curriculum. This would have been a fundamental change and would, for the purposes of this study, constitute a curriculum change.

Ichabod would be expected to make this change only after he had grown to the point where he would remove the birch on his own initiative and replace it with a better kind of justice in which he believed. As he grew in understanding justice and its place in his curriculum, he would begin intelligently to change the curriculum.

Curriculum change was conceived in this study as that evidence in the form of new experiences for pupils which was a result of the personal and professional growth of the school

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[4]The Works of Washington Irving, p. 441, Vol. II. New York: G. P. Putnam and Company, 1855 (revised).

staff.

It would follow that teacher readiness for curriculum change was the teachers' quality of being ready to grow personally and professionally in their school situation. This was the readiness for which a measure was to be devised.

Three assumptions are implicit in these definitions. They are (1) curriculum change is essential, (2) the curriculum changes as teachers change, and (3) teacher change depends on their readiness.

Curriculum change is essential by exactly the same token that society asks that children receive a better education. A better education means new experiences for pupils which are the result, at least in part, of the personal and professional growth of teachers.

The curriculum changes as teachers change for two reasons. The first reason is that this study accepts Alice Miel's view of curriculum which states in part:

> The curriculum is the result of interaction of a complex of factors, including physical environment and the desires, beliefs, knowledge, attitudes, and skills of the persons served by and serving the school; . . .[5]

Teachers, of course, are included in the people serving the school. Changes in their desires, beliefs, knowledge, atti-

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[5]Alice Miel, Changing the Curriculum, p. 10. New York: D. Appleton-Century Company, Inc., 1946.

tudes and skills mean changes in the curriculum and hence the curriculum changes as teachers change. The second reason is that the kind of curriculum changes that teachers will make are only those kinds of changes that they are able to make. They grow from their present capabilities guided by their present interests and purposes and restricted by their own present limitations.

Teacher change depends on readiness. Would Ichabod Crane have been ready to make the curriculum change of removing the birch of justice and replacing it with a new kind of justice? First, it is apparent that a fundamental concept of justice is involved. He could not have removed the birch until he was ready with a new kind of justice. He would also have to consider the effect on his idle urchins. He would need new skills to help him move his idle urchins toward the greater freedom and responsibility that the absence of the birch would create. Only if he is ready to grow personally and professionally can he develop a new concept of justice and new teaching skills. He cannot remove the birch until he has grown personally and professionally. He cannot grow personally and professionally if he is not ready to grow personally and professionally.

Curriculum change and readiness for curriculum change have been defined. The assumptions implicit in the definitions have been stated. The problem is to devise a measure

of this quality as it is found in teacher groups. The measure should serve a useful purpose for curriculum workers.

Background of the Study

There have been no attempts to devise a useful measure of readiness for curriculum change. A study of the teacher-sensed problems of curriculum improvement by Fullagar found a need for a readiness study and indicated, from the teachers' viewpoint, many of the areas that should be examined.[6] Coffman studied the relation between teacher morale and curriculum change.[7] His work was concerned with refining a number of morale scales and determining the effect of morale factors on curriculum development programs. He found significant relationships between teacher morale and curriculum development success as judged by curriculum development workers.

There have been no studies directly concerned with determining the nature of readiness for curriculum change. There were a goodly number of general analyses of what has made for successful curriculum development. These general analyses were a fruitful source of information for this study.

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[6]Fullagar, op. cit.

[7]William E. Coffman, "Teacher Morale and Curriculum Change: A Statistical Analysis of Responses to a Reaction Inventory," Journal of Experimental Education, XIX (June, 1951).

Studies in school adaptability and studies in teacher effectiveness also contributed useful information.

Procedure of the Study

The procedure of the study is given here in outline form.

1. The literature on curriculum and curriculum change was surveyed.
2. The literature was searched for the factors which contributed to success or failure in curriculum change.
3. People associated with the curriculum were interviewed.
4. The evidence gathered from the literature and interviews was used to construct items.
5. Two preliminary test forms, A and B, were constructed.
6. The preliminary test forms were administered to representative groups of teachers.
7. The items on forms A and B which were most discriminating were selected for a form C.
8. Form C was administered to seven teacher groups.
9. Twenty-four items were selected from form C for a form named CIM.
10. Validity tests were made on form CIM by comparing teacher group mean scores with curriculum workers' judgments of their activity or inactivity in curriculum change.
11. Conclusions were drawn and the study was reported.

CHAPTER II

TEACHER READINESS FOR CURRICULUM CHANGE

There was little that was clear-cut and well-organized about the concept of teacher readiness for curriculum change. Nevertheless there appeared to be a vast amount of information on curriculum change which could be related to readiness. From this information and its implications testable hypotheses on what made teachers ready for curriculum change had to be established.

The first problem was that of selecting appropriate sources of information. The second problem was determining hypotheses of readiness for curriculum change. These two problems and the resulting readiness hypotheses are presented in this chapter.

Sources of Information

Four types of information sources were employed to supply evidence on the nature of readiness for curriculum change. The types of sources were (1) general sources such as Hollis L. Caswell's Curriculum Improvement in Public School Systems, (2) research studies such as William E. Coffman's Teacher Morale and Curriculum Development: A Statistical Analysis of Responses to a Reaction Inventory,

(3) related research studies such as Administration for Adaptability (a research summary edited by Donald H. Ross), and (4) observation and interviews with teachers, consultants, administrators, pupils and lay people. These sources included books, magazines, bulletins, yearbooks, people, schools, pamphlets, curriculum development programs and other classifications.

Determining the Hypotheses of Readiness

From the evidence supplied by these sources the readiness hypotheses, that is hypotheses concerning what made teachers ready for curriculum change, were determined. A particular procedure was followed in determining these hypotheses from the evidence.

There were statements in the evidence which said essentially that some quality of the situation made the curriculum change in that situation more successful. An example of such a statement is: giving the teachers a feeling of "belonging" helped the curriculum development program. There also were statements in the evidence which said essentially that some quality of the situation made the curriculum change in that situation less successful. An example of such a statement is: teachers did not know how to work in groups.

Statements of this kind were considered as simple statements of criteria for success or failure in curriculum change. All statements which indicated that some quality of the situation made curriculum change less successful were restated in the opposite sense. In the case of the statement: teachers did not know how to work in groups, it was, when restated in the opposite sense: teachers did know how to work in groups. In this way all statements were converted to simple positive statement of criteria for success in curriculum change.

Now most of these statements of criteria for success in curriculum change either implied or stated directly that some quality of teachers was a contributing factor in successful curriculum change. The statement: teachers did know how to work in groups, implied that the teacher who did know how to work in groups would be more successful in curriculum change. Most of the statements of criteria for success in curriculum change were so stated. Some of the statements neither implied nor stated directly that some quality of teachers contributed to successful curriculum change. Such statements were discarded.

An assumption was then made that the qualities of teachers which contributed to successful curriculum change were the same qualities which made them ready for curriculum change. In the example that has been used previously, the

statement that the teachers who did know how to work in groups were more successful in curriculum change becomes, under this assumption, the new statement: teachers who did know how to work in groups were more ready for curriculum change. The assumption that the qualities of teachers which contributed to successful curriculum change were the same as the qualities of teachers which made them ready for curriculum change was applied to all statements. The statements were rewritten accordingly.

There were more than two hundred such statements and they were therefore unmanageable as a whole. They were divided into categories by a trial and error classification procedure. Inspection of the statements indicated that some were related one to another. Several different attempts were made to group related statements.

The most fruitful grouping, fruitful because there was a clearly defined relationship between the statements that fell into each of the groups, was based on the teachers' relation with the school situation. This grouping resulted in eight categories such as teacher-teacher relations, teacher-pupil relations, teacher-principal relations and the like. The statements that appeared to belong in these categories were placed in them.

The remaining statements appeared on examination to

relate to specific aspects of education such as educational issues, modern educational ideas and others. Five of these categories were set up and all but a few of these remaining statements were placed in them. Those statements which still remained were related to social views and this was established as the fourteenth category.

The categories which resulted were named:

1. Society
2. Ways of Working
3. Pupil
4. Teacher
5. Supervision
6. Administration
7. Outside Leadership
8. Problem
9. Profession
10. System
11. Community
12. Curriculum Improvement
13. Modern Education
14. Issues

Under each of these titles were varying numbers of statements of teacher qualities that contributed to readiness for curriculum change.

The statements in each category supplied an idea

of the scope and content of each category. On the basis of this scope and content an individual hypothesis was established for each of the fourteen categories. Each hypothesis was called the category hypothesis and it represented the sum of the ideas of the statements in that category. The category hypothesis served as a "handle" by which the ideas in the category could be grasped. All of these hypotheses represented the thesis that had been derived from the evidence as to what it was that made teachers more ready for curriculum change.

Readiness Hypotheses

Society: That teacher who is aware of modern social problems and feels that they should be solved by intelligence is more ready for curriculum change.

Curriculum development programs arose in some part in response to the pressure the changing social scene put upon the schools.[1] The depression of the thirties, for example, left more and more youth with no place to go but to school. Youth who would not have finished high school because they could have work as soon as they would leave school found that there was no work. School was the only

[1]Harold Spears, The Emerging High School Curriculum and Its Direction, pp. 42-46, New York: American Book Company, 1948 (revised).

worthwhile activity in which they could engage. In more recent times the threat of World War III, the problem of atomic energy, and the need for American leadership in world affairs have demanded a better education for peace.[2] Such social problems are significant in their effect on the curriculum and plans for its change.

It appeared that the teacher who was aware of modern social problems could see curriculum change in its larger perspective. The vital social reasons for curriculum change have given and will give direction to much of curriculum development activity.[3] The teacher who feels that modern social problems will yield to intelligent endeavor was considered to be optimistic about them. This awareness of social problems and this feeling that the problems can be solved by intelligence should mark the kind of person who knows what difficulties confront him and feels that something can be done about them. The thesis was that such a person is more ready for curriculum change.

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[2]Association for Supervision and Curriculum Development, Action for Curriculum Improvement, 1951 Yearbook, pp. 19-37, Washington: Association for Supervision and Curriculum Development, 1951.

[3]B.Othanel Smith, William O. Stanley and J. Harlan Shores, Fundamentals of Curriculum Development, New York: World Book Company, 1950. See esp. Parts I and II.

Ways of Working: The teacher who is aware of good group procedures and is willing to accept group methods of working is more ready for curriculum change.

Modern curriculum development programs were found to stress cooperative procedures.[4] Small group work, committee work, the "join hands and pull together" were the sine qua non of curriculum development efforts.[5] Much individual effort was expended but the hope was to see the larger, more comprehensive problems through by cooperative procedures.

Possibly this is a sign of our times, this feeling of a need to cooperate. World insecurity, the frustrations of seeing dictatorships rise to threaten democracy, the increased sensitivity to the problems of maintaining a living democracy may be the causes.[6] Regardless of what the causes are the efforts of curriculum development programs are founded on cooperative planning, cooperative decision-making, and the taking of cooperative action.[7] The teacher who understands

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[4]"Cooperative Curriculum Development: A Symposium," Teachers College Record, L (February, 1949), pp. 318-351.

[5]Ibid., pp. 345-347.

[6]Stuart Chase suggests this as the most compelling reason for his book Roads to Agreement, pp. x-xi. New York: Harper and Brothers, 1951.

[7]Elmer F. Pflieger, "A Consultative-Cooperative Method," Educational Leadership, VII (December, 1949), p. 175.

these methods and accepts them was thought to have a better chance to succeed in curriculum development and was therefore assumed more ready for curriculum change.

Pupil: The teacher who understands the endeavors of pupils and something of how to help the pupils is more ready for curriculum change.

The Encyclopedia of Educational Research characterized curriculum development as follows: "One aspect of curriculum planning is the study of the needs of pupils and the development of means whereby there is an understanding of how pupils learn, grow, and develop."[8] There was considerable evidence to show that understanding the growth and development of pupils was a major area of development in curriculum improvement programs.[9] Other studies[10] indicated the importance of teacher regard for the individual pupil.

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[8] Encyclopedia of Educational Research, p. 312, Compiled by The American Educational Research Association. Edited by Walter S. Monroe. New York: The Macmillan Company, 1952 (revised).

[9] National Society for the Study of Education, Adapting the Secondary School Program to the Needs of Youth, Fifty-second Yearbook, Chicago: National Society for the Study of Education, 1953. See also Florence B. Stratemeyer, et al., Developing a Curriculum for Modern Living, pp. 56-57, New York: Bureau of Publications, Teachers College, Columbia University, 1947.

[10] Edward A. Krug, Curriculum Planning, pp. 197-217, New York: Harper and Brothers, 1950. See also Evelyn I. Banning, "Personal Relationships Do Affect Curriculum Change," The School Executive, LXXIII (September, 1953), p. 48.

A goal of curriculum improvement efforts has been to improve the experiences of the pupils. The teacher who understands the endeavors of pupils and knows how to help them was believed to be more ready to engage curriculum development activities directed toward such a goal. He should, therefore, be more ready for curriculum change.

Teacher: The teacher who accepts his colleagues and feels that they could work together productively is more ready for curriculum change.

Teachers respond to a feeling of belonging.[11] Acceptance by fellow faculty members and good intra-staff relationships are components of teacher morale[12] which has been shown to be related to success in curriculum development programs.[13]

Curriculum development programs were judged to be better when the whole staff was involved[14] and when there was adequate communication.[15] It appeared that responsibility

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[11]Ruth Cunningham, et al., "These Changes Helped," Educational Leadership, VII (April, 1950), p. 452.

[12]Harold C. Hand, What People Think About Their Schools, p. 58. New York: World Book Company, 1948.

[13]Coffman, op. cit.

[14]Virgil E. Herrick, "Evaluating Curriculum Improvement Programs," Educational Leadership, VIII (January, 1951), p. 235.

[15]Pflieger, op. cit., p. 175

to colleagues and the feeling of acceptance that is bred through good human relations were both important to curriculum development programs.

Observation by the writer has led to the belief that not all teachers work well together. It was assumed that the teacher who accepts his colleagues and feels that he can work productively with them starts believing in his workmates and in the probability that something constructive will come of the program. Such a teacher was believed to be more ready for curriculum change.

Supervisor: The teacher who accepts his supervisor and turns to his supervisor for help is more ready for curriculum change.

"Improvement of the curriculum usually depends on the quality of administrative and supervisory leadership in the situation."[16] This quality of supervisory leadership was believed to be reflected, if not in part molded, by the teacher's reaction to his supervisor. Because the contribution of supervisors should be to help teachers[17] it was believed essential that the teacher be willing to turn to his supervisor for assistance.

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[16]Association for Supervision and Curriculum Development, op. cit., pp. 149-50.

[17]Ibid., p. 164.

Teachers who have worked with pupils realize that all is not "up" and there are many "downs". Most teachers probably feel the need of a friend on the "down" days. People that work conscientiously with children and their problems need help. If some of that help is professional a teacher should have a stronger base from which to make curriculum changes.[18] In this respect, at least, such a teacher should be more ready for curriculum change.

Administration: The teacher who feels he has and can contribute to the improvement of the school through his principal is more ready for curriculum change.

A study of teacher-sensed problems in curriculum improvement found that teachers did not feel like moving ahead when they did not have the moral support of their principal.[19] Studies in school adaptability find that the principal occupies a key position with regard to the acceptance of new ideas in the school.[20]

One of the most important factors in effective curric-

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[18]Cunningham, op. cit., p. 451.

[19]Fullagar, op. cit., pp. 49-52.

[20]Metropolitan School Study Council, Administration for Adaptability, Vol. II, pp. 90-2. Edited by Donald H. Ross. New York: Metropolitan School Study Council, 1951.

ulum development is a permissive atmosphere.[21] It was assumed that the teacher who felt he could present his ideas through his principal was working in a situation which would be conducive to curriculum change. Successful past experience in presenting ideas, and anticipation of success in similar experiences in the future was believed to be a characteristic of teachers who were ready for curriculum change.

Outside Leadership: The teacher who feels that outside leadership is desirable in curriculum improvement and will probably profit from it is more ready for curriculum change.

It was difficult to discern the exact function of leadership from outside the school system in curriculum development. The role of the consultant was not very clear in practice. None-the-less it was characteristic of curriculum development programs to employ outside leadership and in many cases this outside leadership had an effect on the programs.[22]

A number of things affect a teacher's reaction to outside leadership. First, the teachers often anticipate the

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[21] Pflieger, op. cit., p. 175.

[22] Fullagar, op. cit., pp. 25-52.

activities in which they think the consultant should engage.[23] They expect demonstration teaching or lecturing when these are not typical consultant activities. Second, they may feel very insecure in the presence of a specialist because they do not have confidence in their own ability.[24] Marcella Lawler has defined the role of the consultant and identifies many of the reasons why outside leadership poses a problem in curriculum development.[25]

The fact that it was found to be a common practice to call in consultants and specialists made it a factor with which to reckon. The teacher who would like to see outside leaders in the school is probably relatively secure in the school situation. The teacher who would profit from outside leadership was believed to anticipate and/or approve the consultant's methods of working. Such a teacher should be more ready for curriculum change than one who does not like the presence of outsiders and who looks for techniques that the consultants or specialists are not likely to use.

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[23] Ibid., pp. 31-4.

[24] Some teachers expressed this feeling in informal interviews.

[25] Marcella Lawler, "The Role of the Consultant in Curriculum Improvement," Educational Leadership, VIII (January, 1951).

Problem: The teacher who is aware of pupil and school problems and is interested in helping to solve them is more ready for curriculum change.

School problems are very often the starting point for curriculum development efforts.[26] Booing and poor sportsmanship at athletic events may stir a faculty and be a starting point for an examination of the curriculum. Discipline problems or excessive drop-outs may serve as common problems for a faculty to study.

Effective curriculum development was found to be concerned with problems that actually challenged teachers and administrators.[27] It was believed that the teacher who would work effectively on school problems must be aware of those problems and see them in their proper perspective. He should be aware that the problems, as they relate to curriculum, are exceedingly complex[28] and yet amenable to intelligent solution. Such a teacher was thought to be more realistic about the work of curriculum development and at the same time optimistic about the possibilities for improvement.

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[26] Caswell et al., op. cit., pp. 196-9.

[27] Pflieger, op. cit., p. 175.

[28] A. John Bartkey, "Windmills and Cockroaches: A Realist Looks at Curriculum Revision," Clearing House, XXVII (March, 1953), p. 393.

Profession: The teacher who accepts his profession and feels that his profession is trying to perform a very vital service is more ready for curriculum change.

Teacher morale has been found to be associated with curriculum development success.[29] It was believed that professional morale would be, in part, an indication of teacher morale.

Professional morale probably indicates, at least, an intellectual satisfaction with the kind of endeavor in which the teacher is involved. This feeling that the profession is going somewhere and doing something (possibly despite local job conditions) should indicate a predisposition to accept curriculum development as a part of the proper function of the teacher.

If a teacher feels that the leadership in the profession is good, that the problems of the profession are problems of better service to the people, that the profession is moving ahead, he should be expected to look favorably upon the work of curriculum development. The teacher who is dissatisfied with the profession and does not feel that its service is very important would probably look upon curriculum development as more "busy work".

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[29] Coffman, op. cit., p. 330.

System: The teacher who feels that the system he works in is a good one and that cooperative endeavor is possible within it is more ready for curriculum change.

Satisfaction with the school system was believed to be part of job satisfaction. The teacher who wished to remain in the school system in which he was presently employed was assumed to be reasonably well satisfied with his job. He was expected to feel that the system was satisfactorily, if not well, organized and administered.

Research showed that teachers who had been working in a school system a number of years and who planned to continue working in that system were more adaptable than those who had not.[30]

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[30]Research showed that the most adaptable staffs were those in which "two-thirds of a staff have been members of the same system for a period of from eight to thirty years." A positive relationship was found between home ownership and adaptability on the high school level. This relationship was significant. A non-significant negative relationship was found for elementary school staffs. This evidence was presented by Buley. Donald H. Ross, editor of the source book Administration for Adaptability which quotes and interprets this research, has the following to say: "The suggestion is advanced here that home ownership is related to stability of staff. When a teacher purchases a home in the community where he is teaching, it would seem to indicate that he is planning to remain there for some considerable period of time." Mort and Cornell state in American Schools in Transition, p. 390 (New York: Bureau of Publications, Teachers College, Columbia University, 1941), "Administrative decisions are often made under the false impression that the older teachers are, as a rule, out-of-date and unprogressive in their ideas. In other communities it is believed that younger teachers whose professional training has been more recent, are well informed on recent advances and trends in education and are more receptive to educational

In addition, job satisfaction as represented by teacher morale has been shown to have a salutary effect on success in curriculum change.[31] There appears to be a contradiction in the finding that a person who is satisfied with his school system is more ready to change the curriculum than one who is not. This probably is due to the greater personal security of the satisfied teacher. If he feels secure in the school system, he is satisfied with the system. From this firm base, curriculum changes are not threatening to him. The teacher who is dissatisfied with his school system might well be fearful of change because of his general insecurity. Regardless of cause, the evidence pointed distinctly toward the thesis that the teacher who felt that he was working in a good system in which cooperative endeavor was possible was more ready for curriculum change.[32]

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change. Neither of these beliefs is substantiated in this study." The Metropolitan School Study Council found that the correlation between teachers having ten or more years service in the present elementary school system and the adaptability of schools as measured by "Growing Edge - Elementary Form" was .48. This was reported in Administration for Adaptability, Supplement to Vol. III, Appendix F, p. 359.

[31] Coffman, op. cit., p. 330.

[32] Banning, op. cit., pp. 48-49.

Community: The teacher who likes his community and feels that it could and would play a part in improving the school is more ready for curriculum change.

Community minded teachers were found more adaptable than those who were not community minded.[33] Apparently teachers who have strong community ties (and some studies note that the ties can be too strong),[34] were more active in working toward curriculum change and innovations than those who did not. This might well have been expected purely on the basis of satisfaction bred of the feeling of belonging in the community.

Lay participation in educational endeavors is definitely on the increase in curriculum improvement programs.[35] The P. T. A., lay specialists, parents and the community generally are considered to represent a potential for good

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[33] Metropolitan School Study Council, op. cit., Vol. II, pp. 131-2. The evidence in support of this is quoted from Mort and Cornell, op. cit., pp. 267-8, and Raymond L. Collins, "Techniques of Creative Administration for Identifying Staff Members Alert to Emerging Needs of Public Education," pp. 16-17. Unpublished Doctor's project, Teachers College, Columbia University, 1944.

[34] Ibid., p. 132, quoting Hilton C. Buley, "Personnel Characteristics and Staff Patterns Associated with the Quality of Education," pp. 38-39. Unpublished Doctor's project, Teachers College, Columbia University, 1947.

[35] Caswell et al., op. cit., pp. 94-5.

in school development.[36]

The teacher who liked his community and anticipated that it could and would help with curriculum development endeavors was thought to be in a position to contribute more toward curriculum change because of his satisfactions with the community and his predisposition to accept the community as a partner in curriculum improvement.

Curriculum Improvement: The teacher who understands modern curriculum improvement methods and would be likely to use them is more ready for curriculum change.

It cannot be denied that modern curriculum improvement methods are unique in education. Action research, group processes, teacher participation, lay participation and many other aspects of present day curriculum work have not been used extensively in curriculum change previous to this time.[37] They call for skills, understandings, and attitudes that are not necessarily common to a trained teacher.[38]

In group processes the very attempt to evaluate a

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[36]Helen F. Storen, Laymen Help Plan the Curriculum, Washington: Association for Supervision and Curriculum Development, National Education Association, 1947.

[37]Miel, op. cit.

[38]Fullagar, op. cit., pp. 80-93.

process is often confusing to teachers. Action research in which the teacher is a producer as well as a consumer of research is novel to many teachers. Possibly these are, in part, inherent practices but on the formal level to which curriculum development has raised them they assume formidable proportions to some teachers.[39]

Teachers who understand these methods, and who use them or would be likely to use them, were not expected to be upset by the activities of curriculum development. They were believed more likely to succeed and, as they succeeded, contribute to curriculum change. Teachers who do not understand the methods and would not be likely to use them were thought to be apt to fail and as a consequence, be less able to contribute to curriculum change.

Modern Education: The teacher who understands the ideas of modern education and accepts them is more ready for curriculum change.

The very notion of the experience conception of the curriculum is a fundamental assumption of many curriculum development programs.[40] The idea that people, even teachers, learn by doing and not by being told is an assumption impli-

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[39] Ibid., pp. 85-93.

[40] Caswell et al., op. cit., p. 99.

cit in the "non-directive" approach of many consultants.[41] There are many such ideas in modern education which are either explicit or implicit in the activities and goals of modern curriculum development. They are fundamental assumptions, usually with some research support, and will not bear a great deal of contradiction or disagreement. The plan of curriculum development is postulated on them and right or wrong they must be pretty well accepted.

Modern educational ideas are a framework in which curriculum development takes place. The teacher who could not get inside that framework and accept it was believed doomed to difficulty and disagreement in curriculum development efforts. The teacher who accepted these ideas -- even as assumptions only -- could probably work successfully through curriculum development activities toward curriculum development goals.

Issue: The teacher who tends to accept a non-authoritarian, experience conception of education is more ready for curriculum change.

This is not unlike the preceding hypothesis. It differs from it, though, in the degree to which the theories or ideas are accepted. Modern educational ideas represent the

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[41] Interviews with consultants indicate that they attempt to have local leadership move ahead on their own. See also Lawler, op. cit., p. 222.

facts of modern education, right or wrong. The teacher who not only accepts but finds his values in a non-authoritarian experience conception of education was thought to accept the trends of modern education. In this category the teacher who generalizes beyond the facts in a direction of the non-authoritarian experience conception is the teacher who should show a greater readiness.

The teacher who desires more pupil determination of goals, more lay participation in school activities, plenty of active discussion of modern social problems in the classroom is the kind of teacher who leans toward a non-authoritarian experience conception of education. This category represents a liberal educational view on issues of educational importance.[42]

Such teachers were believed to be more ready for curriculum change because they are more ready to step away from old ideas. They believe that there should be a continuous reexamination of goals and methods in education and that through this reexamination will come curriculum improvement. The "let well enough alone" is not part of their philosophy.[43]

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[42]Mort and Cornell, op. cit., pp. 253-6. Understanding of educational issues was found to be a characteristic of the adaptable teacher.

[43]Pflieger, op. cit., p. 175.

These fourteen hypotheses on the nature of teacher readiness for curriculum change do not represent factors which, when measured and summed give a pure measure of teacher readiness for curriculum change. They are simply some of the factors which appeared to contribute to readiness for curriculum change and be worthy of test. They are the factors for which the first measure of readiness was devised.

CHAPTER III

CONSTRUCTING THE INSTRUMENT

Once the hypotheses concerning the factors of readiness were established, the problem of this study became to devise an instrument to measure this readiness. The purpose of the instrument was to measure readiness for curriculum change in such a way that the measure would be useful to teachers and curriculum workers. The instrument had to be valid and reliable.

The research problem at this stage consisted of devising a measure of teacher responses yielding a score or scores which could be easily interpreted in their relationship to readiness for curriculum change. The complexity of the problem made it necessary to pass through a number of steps and effect successive refinements until the goal of a valid, reliable and useful instrument was reached. The technical aspects of this process, aside from a discussion of validity, are treated in this chapter.

Devising Forms A and B

It was necessary that curriculum development workers and teachers be able to understand the items, the instrument and the use of the instrument. Therefore, aside from formal

validity and reliability, there were two criteria for the instrument. They were simplicity and understandability.

These requirements on the instrument made it essential that the item form be simple and preferably uniform throughout the instrument. Many forms of items (multiple choice, true-false, open-end questions, etc.) were considered. The type of item which filled the requirements of simplicity and understandability was the opinionnaire type of item with three possible answers, agree, uncertain and disagree.

Items were constructed directly from the statements which had been assembled in categories under category hypotheses. These statements had been arrived at through a search of the literature and experience in curriculum change. This was explained in Chapter II.

Starting with a statement the following steps were taken in constructing an item.

1. The statement was: The teacher who expects to work out his own problems in curriculum change is more ready for curriculum change.

2. This was assumed to be true.

3. The following item was constructed:

____ Our teachers should be given intelligently worked out solutions to their curriculum problems.

4. The appropriate answer, disagree, was determined.

In such a manner items were constructed for each of

the individual statements. Some statements were better adapted to item construction than others but all were used to construct items.

The statements from which the items were constructed had been grouped in fourteen categories, each under a category hypothesis. This was discussed in Chapter II. Now, the items which were constructed from the statements were retained in the same category as the statement and under the same category hypothesis. There were at this point then, varying numbers of items in each of fourteen categories.

Each individual category with its hypothesis and items was considered and discussed by a faculty member of the College of Education at the University of Florida and the writer. Items in each category which did not appear to contribute to testing the category hypothesis were discarded.

The remaining items, still divided into categories, were submitted to a group of graduate students and faculty members. This group answered the items. Those items on which any one of this group disagreed with the answer (as found appropriate in the construction of the item), were thoroughly discussed and analyzed by the group member who disagreed and the writer. If the item could be edited satisfactorily it was edited and if not it was discarded.

There were 199 items remaining after this screening process. Because there were so many items it was necessary

to construct two forms for testing purposes. The items were therefore distributed into two preliminary tests, form A and form B. Copies of these forms are included in Appendix A. Form A contained 100 items and form B contained 99 items. Each category on each form was represented by either seven or eight items. The items were not placed in the forms according to categories but were so scattered that the relationships between the items of a category were not apparent.

Directions for examinees were included on each form as well as a request for criticisms at the end of each form.

The purpose of form A and of form B was to provide tests which could be administered and statistically analyzed to determine the items which would be used in a form C.

Devising Form C

Each of the instruments, A and B, was administered to a group of graduate students, most of whom were in-service teachers. The instrument A was administered to a group of fifty-six people and instrument B was administered to fifty people. From these two groups fifty-two out of fifty-six usable forms were returned on instrument A and forty-seven out of fifty usable forms were returned on instrument B.

The usable forms represented people from a population with two common characteristics. They were all taking education courses and all of them had been or were actively tea-

ching. There was no known homogeneity among them with regard to the individual categories. They came from different schools and communities, had different educational levels and different views on education and educational issues.

The purpose of this administration was to have a statistical basis for selecting items. Two measures of item quality were employed in this selection. The first was item difficulty and the second was item discriminating power.

The method of determining item difficulty depended on the method of scoring. Items of the type (Agree, Uncertain, Disagree) may be scored in two ways. In the first way just one of the three choices may be right. In that case if the correct answer is disagree then disagree would be scored 1, agree would be scored 0, and uncertain would be scored 0. Such items may also be scored on a three point scale. If disagree is the correct answer then disagree would be scored 2, uncertain would be scored 1 and agree would be scored 0.

The latter method was chosen in this study because it seemed that the three answers represented roughly scaled values in regard to a hypothetical measure of readiness for curriculum change. For example, in the following item: (appropriate answer is disagree),

____ There is too much emphasis in the present day on curriculum change.

it seemed that the person who answered uncertain was more

interested in promoting curriculum change than the person who answered agree.

Now, to determine item difficulty the following formula was used:[1]

$$\text{Item difficulty} = \frac{\text{sum of scores of all people on the item}}{\text{total possible score of all people on the item}}$$

It should be noted that the higher the value of item difficulty the less difficult the item. It was desirable to have item difficulties average .50. No further refinement of this measure of item difficulty was considered necessary.[2]

Item discriminating power, the second criterion for choosing items, is essentially a measure of the internal consistency of the items with respect to the group of items.[3]

An item discriminates if it distinguishes between those of high and low ability in the trait being measured. If, for example, most of those who scored high in the trait being measured answered an item correctly and most of those

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[1]Robert L. Thorndike, Personnel Selection, p. 233. New York: John Wiley and Sons, Inc., 1949.

[2]This measure of item difficulty could have been refined in two ways. It could have been corrected for chance (guessing appropriate answer), and it could have been translated into scale values on the base line of the normal curve.

[3]Thorndike, op. cit., p. 236.

who scored low in the trait being measured answered the item incorrectly the item would be said to discriminate positively. If the reverse were true the item would be said to discriminate negatively.

Kelley has shown that the most accurate determination of item discrimination can be obtained by considering only the upper and lower 27 per cent of the total group.[3] Flanagan has prepared a table which greatly simplified the computation.[4] The method recommended by Kelley and the ta-

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[3]T. L. Kelley, "The Selection of the Upper and Lower Groups for the Validation of Test Items," Journal of Educational Psychology, XXX (January, 1939). pp. 17-20.

The papers were scored for categories and arranged from highest to lowest score for a particular category. The upper 27% of the papers and lower 27% of the papers were removed. The per cent of persons scoring 2 on a given item was computed for the upper 27% and the lower 27%. Flanagan's tables were then used, entering the table in the column corresponding to the percentage of the upper group and in the row corresponding to the percentage in the lower group. At the intersection of the row and column the correlation value was read. Where necessary, the proper interpolations were made.

It should be pointed out that success with an item was dependent on scoring 2 on an item. A score of either 0 or 1 was considered a failure. A restriction applied by Kelley in determining the optimal size group of scores to be used in determining item discriminating power was that the items be capable of a right and wrong grade only.

The values obtained are essentially product moment correlations based on two assumed normally distributed variables underlying item success and category score.

[4]Table reprinted in Thorndike, op. cit., pp. 398-401.

bles of Flanagan were used in determining item discrimination.

This measure of internal consistency was employed category by category in the selection of items for the purpose of attaining homogeneity among the items of a category. This, of course, presumed that the category score represented a measure of that which the study postulated the category should measure. The homogeneity of the items was a homogeneity only with reference to the category score and whatever it might have represented.

The two sets of items from corresponding categories of forms A and B were arranged together in a group for each category. The item difficulties, the item discriminating powers, and the category hypotheses were included for consideration. From these items a group of items were to be chosen to make up form C.

Each category was considered of equal importance and it therefore seemed advisable to retain an equal number of items from each category. A number of subjects who completed forms A and B reported that the forms were fully long enough and possibly too long. This meant that the maximum number of items from each category should not exceed seven and would be better at six.

Eighty-four items were chosen for an instrument C. These items were chosen in the light of two conditions. (1) The items should have a high item discriminating power.

(2) The average item difficulty by categories should be approximately .50. Where two items contributed equally to the fulfillment of both requirements that item was chosen which appeared to contribute the most toward insuring a test of the category hypothesis.

The results of this selection by categories can be found in Appendix A with a statement of the item, its item difficulty and its item discriminating power. A summary table of item difficulties, and item discriminating powers, including ranges and means by categories, is also in Appendix A.

Once the items were chosen they were combined into a single instrument in such a way that there was no directly discernible pattern of categories. Directions were placed at the beginning of the instrument and a request for criticisms was made at the end of the instrument.

A sheet of twelve questions with its own directions was added to the instrument. These twelve questions were taken from research on adaptability. They were added to the instrument in the hope that a relationship would be found between the results on these twelve questions and the results on the instrument.

The sheet of twelve questions and the instrument of eighty-four items made up form C. A copy of form C is in Appendix B. The results on the sheet of twelve questions

were not interpretable and were not used. The instrument of eighty-four items was used to supply items for form CIM.

Devising Form CIM

Form C was administered to seven groups of teachers. Six of these groups had been judged by curriculum workers to be either active or inactive in changing the curriculum. The remaining group was not used in devising CIM because there were conflicting points of view with regard to their activity in changing the curriculum. Descriptions of these groups and the administrations of form C to them appear in Chapter IV.

These administrations resulted in 180 usable forms of which 66 represented teachers judged active in curriculum change, 97 represented teachers judged inactive and 17 represented teachers not classed with regard to activity or inactivity.

All forms were scored for each category of the instrument and for the whole of the instrument.

The means of the scores on form C for the 66 teachers judged active and the 97 teachers judged inactive were compared for differences. That is, the mean of the scores of the active group on the instrument as a whole and on each of the fourteen categories were compared for differences with

the same means of the scores for the inactive group.[5] The results are given in the accompanying Table 1.

The difference in means for the whole of form C was significant above the 5% level of confidence. Three categories, namely 2, 8 and 12, showed differences of means significant at better than the 1% level. Category 1 showed a difference of means more significant than the difference of means on the whole form but below the 1% level of significance.

This comparison of the means for active and inactive teacher groups was the first step in determining which of the groups of items in form C had the most potentiality for measuring readiness for curriculum change. The assumption underlying this approach was that teachers that are active in changing the curriculum are more ready for curriculum change than teachers that are inactive.

The second step was choosing the appropriate groups of items to be represented in a new form which would measure teacher readiness for curriculum change by teacher groups. Categories 2, 8 and 12 were contributing definitely to the measurement of readiness as defined by the active and inactive groups. Category 1 was contributing slightly to this measurement of readiness.

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[5]The formula is given in Appendix B.

TABLE 1

MEANS OF ACTIVE AND INACTIVE GROUPS
ON FORM C WITH THEIR
DIFFERENCES, t-RATIO AND SIGNIFICANCE

		Mean (Active)	Mean (Inactive)	Difference	t-value	Significance
Category	1	7.68	6.99	.69	2.386	<.05
Category	2	8.20	7.27	.93	3.004	<.01
Category	3	6.70	6.05	.65	1.681	. .
Category	4	9.30	8.43	.86	2.172	<.05
Category	5	9.11	9.10	.01	. . .	. .
Category	6	8.71	8.36	.35	. . .	. .
Category	7	8.02	7.31	.71	1.922	. .
Category	8	9.38	8.15	1.23	3.508	<.01
Category	9	8.73	8.60	.13	. . .	. .
Category	10	8.83	9.15	-.32	. . .	. .
Category	11	7.98	8.04	-.06	. . .	. .
Category	12	7.14	4.79	2.35	5.004	<.01
Category	13	8.42	7.63	.79	2.296	<.05
Category	14	8.47	7.81	.66	1.723	. .
Form C		115.86	108.65	7.21	2.330	<.05

Preliminary validity tests (the same as described in Chapter V), were made with the mean scores on categories 2, 8 and 12 and were followed by similar validity tests with categories 1, 2, 8 and 12. The addition of category 1 contributed slightly to the validity studies and was retained.

The twenty-four items in these four categories were named CIM (Curriculum Improvement Measure). CIM was the final form and represented the result of the attempt to devise a measure of readiness for curriculum change.

The mean, range, σ , $\sigma_{\bar{x}}$ and the reliability were computed for CIM. The results are given below. The frequency distribution which these statistics summarize is given in Appendix D.

TABLE 2

SUMMARY STATISTICS ON CIM

	Mean	Range	σ	$\sigma_{\bar{x}}$	r
CIM	29.45	32	6.414	.479	.65

The reliability was computed by an analysis of variance technique. The Kuder-Richardson formula number 20, as adjusted by Dressel for items of varying weights, was the formula used.[6] This reliability was a measure of internal consistency and is the mean of all possible split-half reliabilities for the scores.

[6]The formula and computation is given in Appendix D.

The range and σ indicated that there was enough variance to assure that CIM was measuring something. The reliability indicated that there was considerable true or common factor variance.

The attempt to devise a measure of readiness for curriculum change consisted of three major steps. (1) Two forms, A and B, were constructed from the evidence available on curriculum change and were administered to people experienced in teaching. (2) Items were selected from forms A and B and combined into a form C which was administered to a group of teachers judged active in curriculum change and to a group judged inactive in curriculum change. (3) Items were selected from form C for a form CIM.

CIM was the measure of readiness for curriculum change devised in this study. The validity of CIM is discussed in two parts. The first part concerns the external criteria of validity and is discussed in Chapter IV. The second part is the measure of agreement between the scores on CIM and the external criteria of validity and is discussed in Chapter V.

CHAPTER IV

ESTABLISHING EXTERNAL CRITERIA

Validity was established in this study by relating responses on the test items to the characteristics of the teachers responding. Curriculum workers judgments were employed to select and define the characteristics of the teachers responding.

The teachers were identified by groups and represented particular schools. Although validity studies were made with CIM the groups filled out form C, which contained the items that constituted CIM. This was done in actual school situations. These teacher groups, curriculum workers judgments about them, the conditions under which they completed the instrument, and their reactions to the instrument established the external criteria of readiness.

Selection of Teacher Groups

Because the fundamental question was to determine whether or not responses to the items were related to readiness for curriculum change teacher groups were selected primarily for their apparent capacity to help answer this question. The critical factor in the choice of teacher groups

was their status with regard to curriculum change. The basic criterion for judging readiness for curriculum change was success in changing the curriculum.

All teacher groups except one fell into two main classifications. The first classification contained the three teacher groups judged by curriculum workers to be active in making curriculum change. There were believed to be differing amounts of curriculum activity among the groups in this classification. The second classification contained the three teacher groups that were judged to be inactive in making curriculum change. There were believed to be differing degrees of inactivity in these teacher groups. The one teacher group that did not fall in one of these two main classifications was subject to conflicting reports on the question of activity or inactivity in curriculum change. This group was retained and used in other connections but was not classified as active or inactive.

Grade levels were considered also in selecting groups. Elementary teacher groups, secondary teacher groups, and groups representing combined elementary and secondary teachers were included.

One of the extraneous factors which had to be accounted for was believed to be formal curriculum development experience. If differences could be shown to exist between schools having the same amounts of curriculum devel-

opment experience the effect of the experience factor could be rejected as a cause of score differences.

For the purpose of validity studies the teacher groups were classified according to amounts of formal curriculum development experience. Two teacher groups were engaged in curriculum development programs at the time they filled out the instrument. Two teacher groups had been previously engaged in curriculum development programs. Three groups had had no formal curriculum development experience.

Groups Engaged in Curriculum Programs

Two of the teacher groups were actively engaged in formal curriculum development programs when they filled out the instrument.

Group C. -- The twenty-six teachers in Group C comprised slightly less than two-thirds of the full-time faculty of a secondary school. They were about midway in a curriculum improvement program in an extension course Education 582, entitled Group Study of Selected Problems in Special Fields, sponsored by the University of Florida. The description of the course is:

> This course is designed to assist teachers in single schools, groups of schools or county systems interested in improving certain subject areas or working on selected problems within the system. The area, the field, or the problem which a teacher group wishes to study will have to be submitted

for approval.[1]

The teachers in Group C attended this course because they wished to and not because they were required to. The total faculty was not represented because enrollment was voluntary. Six of the group were taking the course for credit, often believed to be an incentive to better work, and the remainder were not receiving credit.

The coordinator of the course said about them:

> They get things done so rapidly that I am a week behind every time I meet with them. I spend the two hours at their school getting caught up. They are a sophisticated group with a clear cut problem that they want to solve and, what is more, know how to solve.

This group, Group C, agreed through their EN 582 steering committee, on a favorable recommendation of the coordinator, to fill out the instrument. They agreed with the understanding that they were helping in curriculum research and that such evidence as was available from the results concerning their school would be available to them.

Thirty copies of the instrument were mailed to the principal and turned over by him to the faculty steering committee of the curriculum development program. The forms

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[1] The University Record of the University of Florida: Catalog 1953-4, p. 383. Vol. XLVIII, Series 1, No. 4. Gainesville, Florida: University of Florida, 1953.

were distributed to the teachers by the steering committee previous to a scheduled EN 582 meeting. The instrument filled out by this group and all others was form C and not the refined CIM.

At this meeting the writer gave a brief explanation of this research project and of why the group was asked to participate. The teachers then completed the forms and turned them in. The total time of administration was about thirty-five minutes.

During the administration the atmosphere was relaxed and the teachers discussed items among themselves. The general nature of the items prompted some teachers to ask for clarification. None was given beyond a reading of the item in question. There was a brief discussion following the administration and the group then returned to their EN 582 activities.

Group E. -- The teachers in Group E were similarly engaged in a curriculum improvement program. They, too, were about half through their scheduled EN 582 activities and were in attendance because they desired to be and not because they had to be.

These teachers represented six different schools, three elementary and three secondary, within the same county system. There were four University coordinators working with a total of seventy teachers. The teachers were divided

into four work groups according to grade levels. There was a senior high, junior high, intermediate and primary group.

The University coordinators for the course said that the program had been a difficult one and they felt that very little had been accomplished in the time that had been spent with the group.

The local coordinator of the program and the University coordinator in charge of the whole program discussed the advisability of asking the steering committee to include participation in this research as part of the EN 582 activities. It was agreed and the steering committee approved. Each teacher group was notified by its steering committee members and their respective coordinators just prior to the administration.

The University coordinators handled the administration and were asked to observe the reactions of the teachers in their respective group. The writer was present at the administration moving from group to group to assist the coordinators on any questions that did not, but might have arisen. The coordinators presented a brief idea of the nature of the project and following that the teachers filled out the instrument. Administration time was about thirty minutes.

Following the administration the coordinators gave their groups an opportunity to ask questions or comment on the experience. In one group of the four there were ques-

tions and comments. In the other three groups there was none and these groups turned to their EN 582 activities.

Groups Previously Engaged in Curriculum Programs

Two of the teacher groups had previous experience in formal curriculum development programs. They were not engaged in formal curriculum development programs at the time they filled out the instrument.

Group A. -- During the school year 1951-52, two years previous to this study, the majority of the teachers in Group A engaged a curriculum development program. Curriculum specialists in a position to judge believe that they have been very active in reconstructing their curriculum since that time.

The teachers in Group A represent all grade levels from kindergarten through the twelfth grade. There are twenty-eight full time faculty members of which nineteen are represented in this study.

The principal of the school turned the matter of participation in the research over to the Central Committee of the faculty for consideration. Because the faculty had too little time from the other duties of their faculty meetings to make a decision the Central Committee decided favorably for the group.

The instrument was given to each faculty member with

an attached sheet, a copy of which is in Appendix C , explaining the Central Committee's decision and certain peculiarities of the form in regard to their school situation. (The school is unique in that its central office and supervisory services are vested in the principal's office and that outside leadership may mean people so closely associated with them that the term outside might be misleading.) The teachers in Group A filled out the form at their own convenience and returned it through the school secretary.

Group D. -- The majority of the teachers in Group D had also participated in a curriculum development program two years previously. The program had been judged by the coordinator to have been successful. In the judgment of curriculum workers this program had not produced as much curriculum change either during or afterwards as had the program with Group C.

Teachers in Group D have actively participated in University of Florida in-service education courses and in addition have cooperated in an extensive research effort sponsored through the University during the year 1952-53.

Group D has had difficulties with its county office. The teachers are dissatisfied with the way the county office has handled salary matters particularly. The relations between the teachers and the county office are strained. Other than this, Group D teachers are not particularly unique.

They represent a school of thirty-five full-time faculty members who teach on grade levels seven through twelve. They are represented in this study by those twenty-one of the faculty members who filled out and returned the opinionnaire.

Although Group D had devoted much time and effort to a research project in the year just preceding they agreed by faculty vote in a regular faculty meeting to participate in this research project. They did not feel that they could devote a faculty meeting or a part of a faculty meeting to an administration of the instrument.

The opinionnaire was explained to them and each member of the group was given one to complete at his own convenience. They returned the forms through the principal's secretary. They were, of course, at liberty to discuss the items among themselves as were all other groups.

Groups Never Engaged in Curriculum Programs

The three remaining groups in the study fall in the category of never having engaged in a formal curriculum program. One group was chosen after varying reports about their efforts at curriculum change. The other two groups were chosen because there had been no observed evidence of curriculum change in recent years.

Group B. -- This group represented teachers about whom varying reports had been received concerning their effec-

tiveness in curriculum change. The differences in opinion about the school may be due in part to the fact that they will move to a new building within the next two years and they are actively preparing for this move.

The school represented by the teachers in Group B is a secondary school containing grades eight through twelve with thirty-three full-time classroom teachers. They are represented in this study by the seventeen of these teachers who completed usable forms.

In a faculty meeting the principal requested that the teachers participate in the study. They acquiesced and at that time the writer explained the nature of the study, distributed a form to each faculty member present and was allowed about five minutes to answer questions about the form. The teachers tried some of the items and asked some questions about the items. They were to fill in the form at their own convenience and return it through the principal's secretary. The forms were actually returned through the principal himself.

Immediately following the brief explanation of the form the teachers' attention was turned to the business of the faculty meeting. This group had the poorest general conditions of administration and this may have had some effect on the number of forms returned.

Group F. -- The thirty-two Group F teachers rep-

resented an elementary school with forty full-time faculty members. The grade levels in the school included kindergarten through grade seven. The school has not participated in a curriculum improvement program and competent judges felt that little, if any, curriculum change had taken place in this school in recent years.

The principal asked his faculty to participate in the study as a part of one of their faculty meetings and the faculty agreed. At the scheduled faculty meeting the writer briefly introduced the form and explained the nature of the research. The teachers then devoted the first thirty minutes of their faculty meeting to completing the opinionnaire. The atmosphere was relaxed and the teachers discussed items among themselves. Clarification of particular items was requested by this group also. Again, no clarification beyond a rereading of the items was given. As soon as the administration was completed the group took up its regular faculty business meeting. There was no time for discussion, at least during the period immediately following the administration.

Group G. -- A combined elementary and secondary school with grade levels kindergarten through twelfth provided teachers for Group G. The group was the smallest of any of the school groups in the study. The school had fifteen full-time faculty members of whom fourteen returned usable forms and represent the school in the study. The school had not par-

ticipated in a curriculum development program and had not made curriculum changes observable to the writer. The teachers and the school present no unique features beyond the fact that they were the most cooperative group in the study.

The principal of this school was asked by mail to discuss with the faculty the desirability of their participating. As the number of teachers was small it was necessary to assure a large majority of returns. It was therefore requested that if any teachers declined the school not participate. All teachers agreed to participate after examining a sample form. All of these teachers lived up to the agreement.

The required number of opinionnaires with stamped return addressed envelopes were mailed to the principal for distribution to the faculty. The teachers returned the forms directly by mail.

Characteristics of Group Reactions

The teachers in Group C and Group G had an opportunity to examine the forms before deciding whether or not they would fill them out. The written reactions in the case of Group G and written and observed reactions of Group C gave evidence that they were interested and stimulated. In contrast, Group B and Group E did not have an opportunity to look the forms over before filling them out and their

reactions showed very little evidence of stimulation or interest.

Group G teachers agreed to participation in the study through a consensus and not a majority vote. All teachers in this group responded despite the fact that they did not receive a formal administration of the form.

The administration of the forms in Group C took place in a friendly and relaxed atmosphere. Teachers talked among themselves, asked questions of the writer and took the time they felt they needed to complete the form. The experience stimulated this group and promoted discussion which led to further experiences designed to improve their understanding of curriculum and curriculum change.

All groups reacted against the generality of the statements. Although statements were statements of opinion the teachers apparently felt that they would admit of a "yes or no" answer. In all formal administrations it was emphasized that the statements were intended to be general and were statements of opinion.

The terms "central office" and "supervisor" as they appear in some items on form C caused confusion. These items warrant editing or careful explanation as to what they refer to if form C is administered to another teacher group.

There is not sufficient evidence from seven administrations to do more than indicate what techniques improved

the experience for teachers. It was true that in those administrations where teachers themselves decided that they would participate the results were good. There was also evidence to support the idea that the atmosphere surrounding the administration should be friendly and relaxed.

Although these reactions were significant, particularly with regard to how the instrument should be used and are discussed under recommendations for use in Chapter VI, the important concern was, did the teacher scores have any relation with their judged readiness for curriculum change.

This was the problem of validity. Only as the teacher scores demonstrated a reliable relationship with these teacher groups as the external criteria could the results of the administrations be said to be significant.

CHAPTER V

VALIDITY

Readiness for curriculum change was defined in this study as that quality of being ready to grow personally and professionally in a particular school situation. An eighty-four item instrument, form C, was devised to serve as a preliminary measure of this quality. The eighty-four items were divided into groups of six under fourteen hypotheses. These groups of items were tested by administration of the instrument to groups judged to be active, and to groups judged to be inactive in curriculum change.

All active teacher groups were classed as a single large active group and all inactive teacher groups were classed as a single inactive group. The active group scores on form C were compared with the inactive group scores on form C. As a result of this comparison four groups of items, called CIM, were selected as the best measure of readiness for curriculum change.

The individual teacher groups that had gone together to make up the active and inactive groups were then considered separately. They were compared for the differences of their mean scores on form CIM. These comparisons supplied some of the evidence on validity.

Validity of CIM

The problem of CIM's validity was approached in two ways. The first was a logical approach and the second was statistical.

Logical validity derived from the manner in which the items were constructed. This was explained in Chapter II. Briefly, this involved taking from the available evidence statements of what caused success or failure in curriculum development programs and converting these into items with appropriate answers. The teacher group that marked more answers appropriately should have had more of the qualities which were believed helpful to successful curriculum change.

The assurance that logical validity provided was not sufficient in and of itself. The scores of teacher groups who were judged to be different with regard to readiness for curriculum change had to be compared. In making such comparisons there were three important considerations involved. What was the external criterion by which the groups were labeled ready or not ready for curriculum change? What was the significance of the differences in group scores on CIM? Were these differences attributable to teacher readiness or were they attributable to some other factors?

Significant differences in mean scores[1] of groups

[1]The formulas are given in Appendix B.

working in curriculum development programs were found to be in agreement with curriculum workers judgments about the groups involved in those programs.

Group C and Group E were both involved in a curriculum development program sponsored by the University of Florida. Group C was judged by two University consultants to be an excellent group. Four different consultants judged Group E to be a poor group. All six judgments were independent judgments which agreed, two for Group C and four for Group E.

There were significant differences between the mean scores of Group C and Group E. The difference of means was 3.10 with Group C having the higher mean. This difference had a t-ratio for these two groups of 2.659 which is slightly better than significant at the 1% level ($t = 2.643$ for 75 df).

A comparison between a school which had made curriculum changes and one which had not in the judgment of curriculum workers provided additional evidence.

Although Group A was not engaged in a formal curriculum development program at the time of this study they had been so engaged two years previously. Curriculum workers believed this group to be very active in making curriculum changes. Group F had never had a curriculum development program and was judged by two curriculum workers to be unready for curriculum change.

There were three judges involved, one of whom judged both groups. That is, judge X and judge Y agreed that Group A was a ready group and judge Y and judge Z agreed that Group F was an unready group.

The difference of the means for these two groups was 10.51 favoring the ready group. The t-ratio of significance was 6.518 which is very significant and well above the 1% level of confidence.

The significance of these differences between teacher groups supplied evidence that some measure of teacher readiness for curriculum change was obtained through a group mean score. The most ready group in the judgment of curriculum workers was Group A. This group was in a position where they might well have verbalized the reactions called for by the items. Some of their high mean score might have been due to such verbalization and not an expression of their true reaction. They had made great changes, none-the-less, and their high mean score indicates this. A comparison of their mean score with the other mean scores gave some idea of the range through which CIM distinguished. The mean scores are indicated in Table 3.

Of course the significance of difference of means depended upon the number of cases and the variance in the samples but as a rough guide to the size of the differences Group C and Group E represented differences significant at

the 1% level.

TABLE 3

MEAN SCORES FOR ALL TEACHER GROUPS ON CIM

Teacher Groups	Mean
Group A	37.63
Group B	31.12
Group C	30.65
Group D	29.57
Group E	27.55
Group F	27.12
Group G	25.86

The accompanying table, Table 4, shows the results of the t-test of the differences of means for those individual teacher groups considered active and those groups considered inactive in curriculum change. All active group means were larger than the inactive group means hence all the t values given are positive. The significance level is given in parentheses after each t-ratio.

All active groups scored higher than all inactive groups. Two active groups showed differences at the 1% level or better except for Group C and Group F where the t-value missed 1% by .057, being 2.667 for the required t and 2.610 for the obtained t. Group D showed positive differences over

every inactive group but the differences were not significant.

TABLE 4

t-RATIOS AND THEIR SIGNIFICANCE LEVELS FOR DIFFERENCES OF MEANS FOR ACTIVE AND INACTIVE GROUPS ON CIM

Active Groups	Inactive Groups E		F		G	
A	6.963	(<.01)	6.518	(<.01)	5.965	(<.01)
C	2.659	(<.01)	2.610	(<.02)	2.813	(<.01)
D	1.345	(no sig)	1.434	(no sig)	1.703	(no sig)

These results indicate that the mean score differences very likely were not attributable to chance. The question arises here as to whether they were attributable to readiness. The criterion of curriculum workers' judgments corresponded directly with the results obtained with the instrument. This supported the thesis that the differences were attributable to different amounts of readiness. Were there any other factors which might have caused these differences?

The items refer rather directly to curriculum development activities and goals. Could experience in curriculum development programs provide the key to the differences?

The t-ratios of the differences of the means for all groups are given in Table 5. Group C and Group E had had the same amount of curriculum development experience and presented

TABLE 5

t-RATIOS FOR DIFFERENCES OF MEANS
FOR ALL
TEACHER GROUPS ON CIM

Group	Active			Inactive			
	A	C	D	E	F	G	B
A	0	4.969	4.299	4.963	6.518	5.965	3.642
C		0	(+)	2.659	2.610	2.813	(-)
D			0	1.345	1.434	1.703	(-)
E				0	(+)	(+)	2.251
F					0	(+)	2.317
G						0	3.044
B							0

significant (1%), differences. Group B had not had curriculum development experience yet was not significantly different from a group that had had curriculum development experience (Group D). Group B also scored significantly (1%), above a group that had not had curriculum development experience (Group F), and significantly (1%), below a group that had had curriculum development experience (Group A).

Experience in curriculum development programs did not appear to have been the characteristic of the groups that produced the differences in mean scores.

All schools were not fully or proportionately represented. Did the ready teachers fill out the opinionnaire in the ready groups and the unready teachers fill it out in the unready groups?

Groups C and E were composed of teachers who voluntarily joined a curriculum development program. They might have been considered the more ready teachers because of this. It did not seem reasonable to believe that those teachers who would join a curriculum development program in one case would differ significantly from those who joined in another case.

Groups A, D, B and G represented groups that did not receive a formal administration of CIM. In these groups those teachers who desired to return the form did. There was no reason to believe that the teachers who returned forms in one group were significantly different from those who returned

forms in another group. These groups did, none-the-less, show significant (1%), differences. It did not appear that these differences were attributable to any selection factor effected by CIM returns.

There was a question of whether sixteen or fourteen teachers could be considered as a statistical group. Calculations of differences in such cases employed small sample methods.[2]

Some of the teachers were elementary teachers and some teachers were secondary. It happened that the majority of the secondary teachers were among the active groups. A test of the differences between secondary and elementary teachers showed differences significant at the 1% level favoring the secondary teachers. How much of this difference was attributable to membership in active or inactive groups and how much might be attributable to secondary or elementary status was the question.

The highest scoring group was composed of both elementary and secondary teachers. The lowest scoring group was composed of both elementary and secondary teachers. A senior high subgroup of Group E scored below the mean of the combined elementary groups. Comparing inactive elementary and inactive secondary teachers showed differences in

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[2]The formula is given in Appendix B.

the means that were not significant and only slightly favoring the secondary group. There appeared to be little or no evidence to show that secondary teachers would score high simply because they were secondary teachers.

When the items of CIM were considered it was not believed logical to assume that either elementary or secondary teachers would have any particular advantage because of school level.

The scores of individual teachers were such that at least one teacher in each of two of the unready groups scored well above the mean of the teachers in the most ready group. One teacher in the most unready group scored one-half point below the mean of the teachers in the most ready group. One teacher in the most ready group scored below the mean of two of the unready groups and 1.25 points above the mean of the most unready group. Elementary teachers scored up to ten points above the mean of secondary teachers and secondary teachers scored down to ten points below the mean of elementary teachers.

Such overlapping of scores indicated that the differences were due to the numbers of teachers of the group who scored high or low rather than to any particular group characteristic that tended to make all scores low or high. This lent support to the idea that the differences were due to qualities of teachers rather than to any qualities imposed

by grouping or experience.

Validity and Reliability

The internal consistency reliability of CIM was .65. Although this was not high it was believed satisfactory for a test composed of items constructed ostensibly to measure in four different areas.

Throughout the procedures for proving CIM, the reliability was sacrificed for validity. The original form of eighty-four items had a split half reliability of .80 but its validity was low. As the number of items was reduced the reliability fell off but the validity increased.

The relationship between validity and reliability is a complex one. An internal consistency reliability indicates the amount of true variance that is present in the test. As the true variance increases the reliability increases. As the error variance increases the true variance decreases and the reliability decreases.

High item intercorrelation and equal item difficulty produce maximal reliability because the true variance is increased. But maximal validity requires low intercorrelations and items of differing difficulty. These two goals are somewhat incompatible.[3]

The adjustment that was made between reliability and

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[3]J. P. Guilford, Fundamental Statistics in Psychology and Education, pp. 522-3. New York: McGraw Hill Book Company, Inc., 1950.

validity seemed to be the best that could be made with the evidence that was available. There was enough reliability to assure that CIM was measuring "something" and at the same time enough validity to show that that "something" was related to the external criterion.

Limitations of Validity

The whole attempt to establish validity conceived a kind of operational validity. The essential question which the investigation of validity answered was: Did the scores on CIM directly parallel the judgments of curriculum workers? The investigation found that they did. This meant that the scores could be used as a numerical indication of the readiness or lack of readiness that would characterize a particular group of teachers from a curriculum worker's view point.

Another type of validity could be obtained by comparing teachers as they really feel and act with their responses to the items. This would assure that the items were measuring what they logically appeared to be measuring. Although such validity would be desirable it was not attempted.

The validity of the form, an operational validity derived from agreement with curriculum workers judgments, was arrived at through four major avenues. (1) The research and the general literature pertaining to the problem of readiness for curriculum change supplied simple criteria

which were transformed into items for the instrument. (2) These items were logically grouped in categories under fourteen separate hypotheses. The form was administered to groups of teachers considered to be ready and groups considered to be unready for curriculum change. Those categories which showed significantly different means of scores in favor of the ready group over the unready group were accepted as tenable categories which needed further examination. There were a total of twenty-four items in four categories; six in each category. (3) The mean score of teacher groups judged to be ready or unready were compared for these twenty-four items, or CIM as they were called. There were significant differences between two ready groups and every unready group, and positive differences between the third ready group and every unready group. (4) A number of the most logical of the factors that might have induced these differences, aside from teacher readiness of course, were shown to be ineffective at producing mean score differences. It seemed logical to conclude that that quality on which curriculum workers judged the groups was the factor which effected the greatest portion of the differences found.

It should be pointed out that the external criterion employed here to establish the validity of CIM was the prac-

tical criterion. Did CIM condense into a score such an indication of readiness for curriculum change as curriculum workers could comprehend only after long close association with the group? CIM did just this, within reasonable limits, and could serve to tell a curriculum worker where a group stood with regard to readiness for curriculum change.

CHAPTER VI

RECOMMENDATIONS AND CONCLUSIONS

The purpose of this study was to devise an instrument to measure readiness for curriculum change. Two instruments, forms A and B, were constructed first. Items were selected from these two forms for a form C. Form C was administered to groups judged active and inactive in curriculum change. On the basis of the evidence supplied by the administrations of form C four groups of six items each were selected as best measures of readiness for curriculum change. This was the form CIM and was the instrument that was devised. The following recommendations and conclusions are made in the light of this experience.

Recommendations for Use of CIM

CIM should be used to contribute to successful curriculum development. The fundamental criterion for its use is: Will its use contribute to the success of the given curriculum development effort? If the manner in which it is used answers this criterion in the affirmative its use is justified. This is the long way of saying that there are moral and rational considerations that bear on CIM's use.

The specific recommendations for its use fall in the

two areas, administration, and interpretation. CIM has not been administered by itself. The following recommendations are based on experience with form C.

Administration. -- The best results were obtained in teacher groups in which the teacher played a significant part in deciding to fill out the form and the conditions of administration were informal. The following specific recommendations are made:

1. Teacher groups should have an opportunity to look the forms over before deciding whether or not to fill them out.

2. Teacher groups should decide to fill out CIM on a sounder basis than a simple majority vote.

3. The conditions of administration should be informal and the atmosphere friendly and relaxed.

4. The time for administration should not be limited. Thirty minutes is a good estimate of the time necessary.

5. Teacher reaction against the generality of the items should be met with the frank admission that the statements are intended to be general and are statements of opinion.

Interpretation. -- Recommendations for interpretation are limited to the group mean score on CIM. This is the score for which CIM was validated. On the basis of the limited experience of the study the following recommendations are made:

1. A group mean score above 30.0 indicates that the teacher group scores like those groups that curriculum workers judged to be active in curriculum change.

2. A group mean score below 28.0 indicates that the teacher group scores like those groups that curriculum workers judged to be inactive in curriculum change.

3. A group mean score between 28.0 and 30.0 indicates that the teacher group does not score like either active or inactive groups.

Recommendations for Further Research

The items composing CIM were selected from form C as the best measures of readiness for curriculum change for a particular population. This population was limited in size. CIM represents only those groups of items on form C which distinguished most significantly within that population.

Some further research should employ form C. Form C should be administered to a larger population about which judgments can be made concerning their readiness or lack of readiness for curriculum change. On the basis of the results obtained, items can be added to CIM or it may well be that better measures of readiness than CIM can be selected.

Research limited to CIM should be directed toward standardization through administration to a large population, improved reliability, and a study of its effect on curriculum development experiences.

No attempt was made to study teachers individually in regard to their readiness for curriculum change. It may be that a few ready teachers within a teacher group have a pronounced effect on the success of that teacher group in chang-

ing the curriculum. Research could be directed toward determining the effect the readiness of individual teachers has on group readiness. Neither form C nor form CIM has been validated for the individual teacher. This should be the first step in studying the effect individual teachers have on a group's readiness for curriculum change.

Conclusion

A short forward step appears to have been made in measuring teacher readiness for curriculum change. This new vantage point may make it possible for curriculum workers and teachers to create more appropriate curriculum development experiences for themselves. If this should be the case the hopes for the study will have been fulfilled.

APPENDICES

APPENDIX A

FORM A, FORM B AND ITEM SELECTION STATISTICS

Directions: The following statements about society, education and your school present a variety of points of view and attitudes. Answers cannot be said to be "right" or "wrong" because the situation and your point of view determine the answer. Please express your point of view with regard to each statement. If you agree with the whole statement more than you disagree with it mark it A in the space provided at the left of the statement. If you disagree with the whole statement more than you agree with it mark it D in the space provided at the left of the statement. If you are uncertain about the whole statement mark it U in the space provided at the left of the statement. Please mark every statement.

Agree more than disagree A Uncertain U Disagree more than agree D

___ 1. The intelligence of the people should be relied upon for governing themselves.
___ 2. As a member of any small group I feel a responsibility to see that everybody has a chance to have his ideas understood.
___ 3. Adolescent creativity tends to be more destructive than constructive.
___ 4. The teachers in our school are highly competitive when it comes to advancement.
___ 5. Our school morale would drop if supervisory services were curtailed.
___ 6. When I present an idea to my principal it is sometimes forgotten in the rush of his administrative duties.
___ 7. It is characteristic of educational problemsthat if you try to solve one you find two more and end up by doing little about any of them.
___ 8. Some elements of our community tend to resist changes in the school.
___ 9. I am not usually consulted in policy decisions of our school system.
___10. Extensive cheating in a school is usually a sign that the pupils are generally dishonest.
___11. Teachers should use classroom experimentation to test ideas.
___12. If we brought in an educator from outside our community to work with us on the curriculum we would get a better perspective on our problems.
___13. Teachers cannot perform as valuable a public service as doctors of medicine.
___14. In planning a unit of work my first step after the area to be covered is determined would be to explore the area with my students.
___15. Children and adults should be more closely associated through activities which pertain to both.
___16. The modern pupil does not have enough respect for his teacher.
___17. I feel that supervision is desirable because it is helpful to me and other teachers.
___18. Our school principal should not give full support to any idea for improving instruction no matter how good the idea is.

___ 19. The layman cannot contribute to the solution of curriculum problems because the problems are too complex.
___ 20. Pupil teacher planning is desirable only in the less important school activities.
___ 21. Teachers of today can do little toward leading a pupil to personal excellence.
___ 22. A curriculum consultant and his assistants should exert the leadership for a curriculum improvement program.
___ 23. Our central office staff stresses a cooperative approach to school problems.
___ 24. Written materials (not textbooks) devised by educators outside the school system should not be used.
___ 25. It is undemocratic to evaluate students in the same class by different standards.
___ 26. Most school problems need the firm hand of discipline first and solution afterwards, if they still remain as problems.
___ 27. I do not feel that I should become very friendly with my fellow teachers.
___ 28. Group solutions of problems tend to be of average quality.
___ 29. As a member of a small group I feel a responsibility to participate whether I am interested in the matter or not.
___ 30. I was hired to teach and not to solve school problems.
___ 31. Pre-service teacher training has improved in recent years.
___ 32. It is characteristic of good curriculum improvement programs to have specialists observe teachers and offer constructive criticisms.
___ 33. Pupil activity is most valuable when it is constructively solving a student's problem.
___ 34. Faculty committees are a help to our principal.
___ 35. I would solve a class-wide discipline problem by working the solution out with the help of the pupils.
___ 36. Problems of labor and management are better left out of the classroom.
___ 37. My supervisor makes it easier for me to share my problems with other teachers.
___ 38. The people of our community do not hold their teachers in high regard.
___ 39. The professional literature in education is of poor quality.
___ 40. Teacher abilities are apt to go unnoticed in our school.
___ 41. Modern schools should return to a program of fundamentals similar to that in use about thirty years ago.
___ 42. There is considerable leadership ability among the teachers in our school.
___ 43. Society operates pretty much on a "dog-eat-dog" basis.
___ 44. My supervisor appreciates my professional abilities.
___ 45. There is equal opportunity for young people to grow and develop in our community.
___ 46. As a teacher I am in an excellent position for making a contribution to our society.

___ 47. Our central office is not really aware of what goes on in the schools.
___ 48. The social issues and problems of the present day should be discussed in the classroom.
___ 49. There are numerous faculty members who will bog down any discussion of school matters.
___ 50. Faculty effectiveness would increase if our faculty would study its problems in small face-to-face groups.
___ 51. Some student control of school activities and discipline would be desirable in our school.
___ 52. Good leadership from outside the school is helpful in curriculum improvement programs.
___ 53. Many curriculum problems can be solved by small groups of teachers working together.
___ 54. Youth is not concerned with economic security.

___ 55. Teachers should not, as a general rule, look to their principal for help.
___ 56. Pupils in our school are too immature to have a hand in planning their own learnings.
___ 57. Effective guidance and counseling must employ a wholesome respect for the pupil's personality.
___ 58. A curriculum consultant from outside the school must be able to solve teachers problems for them.
___ 59. Individuals lose their effectiveness when they work in groups having more than 10 or 12 members.
___ 60. Teachers should not be expected to help solve each others problems.
___ 61. The central office keeps us aware of what is going on in our schools.
___ 62. My position as a teacher in our community makes close community relationships difficult.
___ 63. Present day society makes much more extensive demands for school services than it did half a century ago.
___ 64. The school should help the pupil to clarify his role in the community.
___ 65. My supervisor is realistic when it comes to an actual instructional problem.
___ 66. The leadership provided by the educational profession is rather ineffective.
___ 67. Continuous rethinking and modification of purposes and objective hinders educational progress.
___ 68. Teachers should try intelligently to improve a bad classroom situation before they find out who is to blame.
___ 69. In a curriculum improvement program a specialist should devote a good deal of time to demonstration teaching.
___ 70. Our principal has a thankless job.

___ 71. When a pupil fails to do his assigned work he should be penalized.
___ 72. When a teacher has an instructional problem he will get good help from our supervisor.
___ 73. Being a teacher is a social handicap.

___ 74. I should carefully analyze a pupils errors of judgement for him.
___ 75. There is too much emphasis in the present day on curriculum change.
___ 76. Our school committees are most effective when a strong leader controls the committee.
___ 77. I do not think it advisable to engage in social activities with my principal.
___ 78. The modern day attacks on the school present no evidence of need for curriculum change.
___ 79. School-wide curriculum improvement programs employing outside specialists are apt to cause trouble in a school.
___ 80. To be a good group leader in our school a person must be able to control the people in the group.
___ 81. I feel a strong bond of fellowship between myself and the other teachers in my school.
___ 82. Our school problems stem primarily from a poor school philosophy.
___ 83. The problems of our community are not a vital concern of our school.
___ 84. Private enterprise is the most essential feature of the American way of life.
___ 85. The relation between our school and public is poor.

___ 86. In the long run it is more satisfactory if decisions are made by a single responsible person rather than a group.
___ 87. The greatest advantage in being a teacher lies in the fact that we have considerable time to ourselves.
___ 88. Pupils who are unable to participate in planning class activities are probably insecure in the planning situation.
___ 89. When evaluating a pupil it is always essential to know the purposes of the pupil.
___ 90. For good curriculum improvement efforts the teachers should discover and present many of the problems to be studied.
___ 91. A major objective of the curriculum is to give the pupil competence in thought and action in his daily life situations.
___ 92. Our community is a fine community to live in.

___ 93. The teachers in my school are reliable.

___ 94. Curriculum specialists from outside the school are vague when it comes to solving an actual instructional problem.
___ 95. Our supervisor's job is difficult because he is the last to know of the instructional problems with which he is supposed to be helping.
___ 96. The United Nations should have whole-hearted American support.
___ 97. I would benefit by actively helping to solve some of the problems our principal faces.
___ 98. If all the teachers in our school would teach the same way there would be no school problems.

___ 99. I enjoy the extra school duties (clubs, dramatics, journalism, etc.)
___ 100. It would be undesirable for teachers in our school to observe each other in the classroom.

Thank you for participating. If you have any comments about the test or the items I would very much like to have them. This research can employ your criticisms to great advantage.
Criticisms:

Directions: The following statements about society, education and your school present a variety of points of view and attitudes. Answers cannot be said to be "right" or "wrong" because the situation and your point of view determine the answer. Please express your point of view with regard to each statement. If you agree with the whole statement more than you disagree with it mark it A in the space provided at the left of the statement. If you disagree with the whole statement more than you agree with it mark it D in the space provided at the left of the statement. If you are uncertain about the whole statement mark it U in the space provided at the left of the statement. Please mark every statement.

Agree more than disagree A Uncertain U Disagree more than agree D

___ 1. Many beliefs of the American people are contradictory.

___ 2. I look forward to visits from my supervisor.

___ 3. About the only way to help teachers with their problems is to demonstrate their solutions in the classroom.

___ 4. Most of our teachers are unprofessional in their behavior toward their fellow teachers.

___ 5. One big trouble with our principal's job is that he is "caught" between the superintendent on one side and the teachers on the other.

___ 6. As far as our school is concerned there is wisdom in the adage "let well enough alone".

___ 7. Our central office staff is anxious to have teacher's ideas for improving the school and instruction.

___ 8. A difficulty with group work is that the able people get outvoted by the average.

___ 9. The kind of pupil that is in school today has made teaching less worthwhile than it used to be.

___ 10. Pupils are apt to break school rules because they are not concerned about what other people think.

___ 11. The best way for me to obtain an intelligent and impartial evaluation of a pupil is through a good battery of standardized tests.

___ 12. It is essential in a curriculum improvement program that the teachers thoroughly study a good text on curriculum.

___ 13. A good teacher will sit down and plan a pupil's program for him.

___ 14. The youth of our community need more and better opportunities.

___ 15. Our central office staff is formal in its way of working with teachers.
___ 16. With the help of good leadership a group can plan work more effectively than a single person.
___ 17. Educational research has improved in quality in the last ten years.
___ 18. It is an honor to have pupils accept you as one of their adult friends.
___ 19. The best training for adult living is to be found in good intellectual discipline.
___ 20. In a curriculum improvement program some time should be devoted to learning how to work together.
___ 21. A pupil's experience in a guidance interview is more important than what he is told.
___ 22. Our school could deal successfully with any pressure groups existing in our community.
___ 23. America has a classless society.

___ 24. The teacher that does not need help from the supervisor is the strong teacher.
___ 25. If educational leaders outside the community would give good support to the teachers they would be welcome to help the school.
___ 26. It is profitable for me to get together with another teacher and work out a common problem.
___ 27. Our principal relies on the teachersto help him.

___ 28. Solving classroom difficulties is my job only and not partly the pupil's job.
___ 29. The teachers in my school are among my closest friends.

___ 30. It is profitable to me to take my instructional problems to my supervisor.
___ 31. Our pupils know what many of their real educational needs are.
___ 32. I would use materials other than the text only to supplement the text.
___ 33. Teachers get about the same recognition for their achievements as other people do.
___ 34. Promotion possibilities are good in our system.

___ 35. Many pupils find it difficult to act as teachers expect them to and at the same time retain status with their classmates.

___ 36. As long as I am a member of a small group I am responsible to abide by the decisions the group makes.
___ 37. The main reason that instruction should be individualized is because students differ in intelligence.
___ 38. A curriculum improvement program in our school should employ as much faculty leadership as possible.
___ 39. The P.T.A. is effective in our community and our school.

___ 40. The activities of such different groups as schools, business, and government are quite interdependent.
___ 41. Resource specialists from outside the school would be a help to me in solving my problems.

___ 42. I would take a personal problem to my principal.

___ 43. Our teachers should be given intelligently worked out solutions to their curriculum problems.
___ 44. It is not practical for the average teacher in our school to develop contacts with the home and family of pupils.
___ 45. Society continually creates different problems which need solving.
___ 46. Our school should run itself without the help of educational leaders outside the community.
___ 47. I feel that I have made a definite contribution toward better school policies.
___ 48. The teachers in our school take a definite interest in the good practices of their colleagues.
___ 49. My supervisor leaves me with two or more new problems where I originally just had one.
___ 50. Modern schools should center more of their efforts in the problems of pupils.
___ 51. Modern schools need to be made more experimental.

___ 52. Teaching cannot really be called a profession in the sense that law and medicine are professions.
___ 53. The teacher who does not like to work on school problems probably realizes the futility of such work.
___ 54. Discipline problems are best handled by locating the culprit and properly punishing him.
___ 55. I feel some responsibility to see that everyone in a group is wanted as a member of a group.
___ 56. Our pupils should have more responsibility for planning our school program.
___ 57. Solution of typical youth problems has little useful bearing on the solution of their adult problems to come.
___ 58. Good general education requires that all students have the same experiences.
___ 59. It is idealistic to think of the teaching profession as making any great contribution to our society.
___ 60. Small pressure groups or cliques in our school system must be handled very carefully to avoid trouble.
___ 61. It would be advisable for our staff to study the curriculum of our school and consider changing it.
___ 62. The best form of democratic decision making is by majority vote.
___ 63. Many of our pupils have been spoiled by too much attention.
___ 64. In a curriculum improvement program regular lectures on curriculum and curriculum theory should be given by a consultant.
___ 65. In our community a teachers standing and prestige are low.
___ 66. There is equal opportunity for all people in America.

___ 67. Teachers need to have new methods and techniques explained to them in every detail.
___ 68. I would take a professional problem to my principal.

___ 69. The teachers in our school enjoy informal association with each other.

___ 70. It is the primary job of our supervisor of instruction to observe the teacher's work.
___ 71. Democratic understanding is best achieved by a study of the ideals of western culture.
___ 72. The most vital question the teaching profession faces is the question of low salaries.
___ 73. The problems that pupils have are really one expression of the problems of society.
___ 74. Pupils feel that taking certain courses gives them prestige.
___ 75. Most community indifference to education is really a lack of parental concern for their children.
___ 76. University faculty members have little or no place in public school curriculum improvement programs.
___ 77. Faculty committees could handle many of our school problems successfully.
___ 78. The time for a teacher to call in our supervisor is when he has a good program working.
___ 79. When our principal is making decisions that might affect the teachers, the teachers tell him how they feel about the matter.
___ 80. Consumer education is not a vital need for our society.
___ 81. When altering the curriculum all problems should be considered as they affect the total school program.
___ 82. A critical aspect of small group leadership is the ability to understand what the individuals and the group really desire to do.
___ 83. Our central office staff is helpful.
___ 84. A pupils school experiences are in many respects unlike any other pupils experiences.
___ 85. The competent resource person is the person who can tell you how to solve your problems of instruction.
___ 86. Our school should help to discover and solve the problems of the neighborhood from which our students come.
___ 87. The best way to understand a pupil is to talk him over with the rest of the faculty.
___ 88. School problems are usually caused by faulty administration.
___ 89. The teaching profession needs an authoritative leadership of a few chosen educators if it is to make any progress as a profession.
___ 90. In the final analysis the offerings of the school should be determined by the enlightened participation of the whole population.
___ 91. The best way to develop responsibility in a student is to give him opportunities to be responsible.
___ 92. It is difficult to tell when my supervisor will visit my classes.
___ 93. My professional problems do not lend themselves to group discussion and analysis.
___ 94. The goal of curriculum improvement efforts is the revision of old courses or the introduction of new courses.

___ 95. Every evidence of Communism in American public office should be ruthlessly tracked down.

___ 96. I would like to serve on a committee with my principal.

___ 97. The only good supervision is no supervision.

___ 98. It would be very difficult to organize the teachers in our school for a concerted program of action.

___ 99. My supervisor could give the best service by just making materials and teaching aids available.

Thank you for participating. If you have any comments about the test or items I would very much like to have them. This research can employ your criticisms to great advantage.
Criticisms:

TABLE 6

SUMMARY OF ITEM SELECTION STATISTICS BY CATEGORIES

Category	Range of Item Difficulty	Mean of Item Difficulty	Range of Item Discrimination	Mean of Item Discrimination
1. Society	.42-.86	.63	.32-.61	.51
2. Ways of Working	.47-.80	.63	.51-.70	.65
3. Pupils	.50-.73	.63	.54-.77	.67
4. Teacher	.38-.71	.61	.60-.82	.74
5. Supervision	.61-.75	.67	.68-.84	.76
6. Administration	.50-.79	.66	.60-.82	.72
7. Outside Leadership	.52-.81	.68	.49-.83	.68
8. Problem	.64-.79	.72	.60-.83	.61
9. Profession	.43-.80	.65	.32-.83	.64
10. System	.44-.69	.58	.67-.82	.75
11. Community	.37-.80	.62	.36-.78	.60
12. Curriculum Improvement	.40-.70	.56	.61-.71	.65
13. Modern Education	.50-.86	.65	.38-.65	.57
14. Issue	.62-.86	.72	.57-.76	.68
Mean		.64		.66

TABLE 7

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 1

Hypothesis: The teacher who is aware of modern social problems and feels they should be solved by intelligence is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
1	A	.72	.48	A	1	The intelligence of the people should be relied upon for governing themselves.
95	B	.42	.61	D	15	Every evidence of Communism in American public office should be ruthlessly tracked down.
40	B	.72	.57	A	41	The activities of such different groups as schools, business and government are quite interdependent.
43	A	.61	.44	D	43	Society operates pretty much on a "dog-eat-dog" basis.
96	A	.86	.54	A	64	The United Nations should have wholehearted American support.
66	B	.47	.32	D	83	Private enterprise is the most essential feature of the American way of life.
Mean		.63	.51			

* Item Discriminating Power

TABLE 8

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 2

Hypothesis: The teacher who is aware of good group procedures and is willing to accept group methods of working is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P*.Category	Answer	Form C Number	Item
62	B	.47	.69	D	2	The best form of democratic decision making is by majority vote.
59	A	.50	.70	D	17	Individuals lose their effectiveness when they work in groups having more than 10 or 12 members.
80	A	.56	.64	D	39	To be a good group leader in our school a person must be able to control the people in the group.
8	B	.69	.68	D	44	A difficulty with group work is that the able people get outvoted by the average.
36	B	.76	.66	A	65	As long as I am a member of a small group I am responsible to abide by the decisions the group makes.
29	A	.80	.51	A	82	As a member of a small group I feel a responsibility to participate whether I am interested in the matter or not.
Mean		.63	.65			

* Item Discriminating Power

TABLE 9

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 3

Hypothesis: The teacher who understands the endeavors of pupils and something of how to help the pupils is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*,Category	Answer	Form C. Number	Item
71	A	.51	.77	D	3	When a pupil fails to do his assigned work he should be penalized.
16	A	.73	.77	D	19	The modern pupil does not have enough respect for his teacher.
63	B	.63	.54	D	37	Many of our pupils have been spoiled by too much attention.
37	B	.50	.68	D	45	The main reason that instruction should be individualized is because students differ in intelligence.
10	B	.73	.70	D	66	Pupils are apt to break school rules because they are not concerned about what others think.
88	A	.69	.58	A	81	Pupils who are unable to participate in planning class activities are probably insecure in the planning situation.
Mean		.63	.67			

* Item Discriminating Power

TABLE 10

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 4

Hypothesis: The teacher who accepts his colleagues and feels that they could work together productively is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.* Category	Answer	Form C Number	Item
48	B	.71	.70	A	4	The teachers in our school take a definite interest in the good practices of their colleagues.
4	B	.60	.81	D	21	Most of our teachers are unprofessional in their behavior toward their fellow teachers.
98	B	.60	.81	D	35	It would be difficult to organize the teachers in our school for a concerted program of action.
49	A	.38	.82	D	46	There are numerous faculty members who will bog down any discussion of school matters.
4	A	.71	.72	D	67	The teachers in our school are highly competitive when it comes to advancement.
29	B	.65	.60	A	880	The teachers in my school are among my closest friends.
Mean		.61	.74			

* Item Discriminating Power

TABLE 11

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 5

Hypothesis: The teacher who accepts his supervisor and would turn to his supervisor for help is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*.Category	Answer	Form C Number	Item
72	A	.63	.84	A	5	When a teacher has an instructional problem he will get good help from our supervisor.
65	A	.66	.83	A	23	My supervisor is realistic when it comes to an instructional problem.
37	A	.61	.77	A	33	My supervisor makes it easier for me to share my problems with other teachers.
30	B	.71	.71	A	47	It is profitable for me to take instructional problems to my supervisor.
49	B	.75	.70	D	68	My supervisor leaves me with two or more new problems where I originally had just one.
99	B	.65	.68	D	79	My supervisor could give the best service by just making materials and teaching aids available.
Mean		.67	.76			

* Item Discriminating Power

TABLE 12

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 6

Hypothesis: The teacher who feels that he has and can contribute to the improvement of the school through his principal is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
70	A	.69	.74	D	6	Our principal has a thankless job.
6	A	.50	.78	D	25	When I present an idea to my principal it is sometimes forgotten in the rush of administrative duties.
42	B	.63	.82	A	31	I would take a personal problem to my principal.
5	B	.63	.60	D	48	One big trouble with our principal's job is that he is "caught" between the superintendent on one side and the teachers on the other.
79	B	.71	.64	A	69	When our principal is making decisions that might affect the teachers, the teachers tell him how they feel about the matter.
96	B	.79	.76	A	78	I would like to serve on a committee with my principal.
Mean		.66	.72			

* Item Discriminating Power

TABLE 13

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 7

Hypothesis: The teacher who feels that outside leadership is desirable in curriculum improvement and will probably profit from it is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
12	A	.66	.72	A	7	If we brought in an educator from outside our community to work with us on the curriculum we would get a better perspective on our problems.
79	A	.71	.83	D	27	School-wide curriculum improvement programs employing outside specialists are apt to cause trouble in a school.
67	B	.64	.76	D	29	Teachers need to have new methods and techniques explained to them in every detail.
94	A	.52	.72	D	49	Curriculum specialists from outside the school are vague when it comes to solving an actual instructional problem.
3	B	.77	.49	D	70	About the only way to help teachers with their problems is to demonstrate their solutions in the classroom.
31	A	.81	.56	A	77	Pre-service teacher training has improved in recent years.
Mean		.68	.68			

* Item Discriminating Power

TABLE 14

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 8

Hypothesis: The teacher who is aware of pupil and school problems and is interested in helping to solve them is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
7	A	.64	.83	D	8	It is characteristic of educational problems that if you try to solve one you find two more and end up by doing little about any of them.
68	A	.67	.60	A	28	Teachers should try intelligently to improve a bad classroom situation before they find out who is to blame.
75	A	.79	.78	D	42	There is too much emphasis in the present day on curriculum change.
6	B	.75	.70	D	50	As far as our school is concerned there is wisdom in the adage "let well enough alone".
54	B	.77	.64	D	57	Discipline problems are best handled by locating the culprit and properly punishing him.
88	B	.73	.69	D	84	School problems are usually caused by faulty administration.
Mean		.72	.61			

* Item Discriminating Power

TABLE 15

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 9

Hypothesis: The teacher who accepts his profession and feels that his profession is trying to perform a very vital service is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
73	A	.74	.69	D	9	Being a teacher is a social handicap.
66	A	.63	.83	D	26	The leadership provided by the educational profession is rather ineffective.
72	B	.64	.70	D	30	The most vital question the teaching profession faces is the question of low salaries.
33	B	.43	.56	A	51	Teachers get about the same recognition for their achievements as other people do.
39	A	.80	.74	D	58	The professional literature in education is of poor quality.
52	B	.67	.32	D	76	Teaching cannot really be called a profession in the sense that law and medicine are professions.
Mean		.65	.64			

* Item Discriminating Power

TABLE 16

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 10

Hypothesis: The teacher who feels that the system he works in is a good one and that cooperative endeavor is possible within it is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
47	A	.63	.82	D	10	Our central office staff is not aware of what really goes on in the school.
15	B	.59	.81	D	24	Our central office staff is formal in its way of working with teachers.
61	A	.54	.77	A	32	The central office keeps us aware of what is going on in our schools.
7	B	.61	.75	A	52	Our central office staff is anxious to have teachers' ideas for improving instruction.
9	A	.44	.67	D	59	I am not usually consulted in policy decisions of our school system.
82	A	.69	.70	D	75	Our school problems stem primarily from a poor school philosophy.
Mean		.58	.75			

* Item Discriminating Power

TABLE 17

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 11

Hypothesis: The teacher who likes his community and feels that it could and would play a part in improving the school is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P*. Category	Answer	Form C Number	Item
44	B	.63	.76	D	11	It is not practical for the average teacher in our school to develop contacts with the home and family of pupils.
75	B	.55	.64	D	22	Most community indifference to education is really a lack of parental concern for their children.
62	A	.80	.78	D	34	My position as a teacher in our community makes close community relationships difficult.
38	A	.73	.63	D	53	The people of our community do not hold their teachers in high regard.
45	A	.64	.42	D	60	There is equal opportunity for young people to grow and develop in our community.
22	B	.37	.36	A	74	Our school could deal successfully with any pressure groups existing in our community.
Mean		.62	.60			

* Item Discriminating Power

TABLE 18

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 12

Hypothesis: The teacher who understands modern curriculum improvement methods and would be likely to use them is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
69	A	.57	.71	D	12	In a curriculum improvement program a specialist should devote a good deal of time to demonstration teaching.
43	B	.66	.68	D	20	Our teachers should be given intelligently worked out solutions to their curriculum problems.
76	A	.54	.63	D	36	Our school committees are most effective when a strong leader controls the committee.
65	B	.52	.61	D	54	In a curriculum improvement program regular lectures on curriculum and curriculum theory should be given by a consultant.
12	B	.40	.64	D	61	It is essential in a curriculum improvement program that the teachers thoroughly study a good text on curriculum.
94	B	.70	.64	D	73	The goal of curriculum improvement efforts is the revision of old courses or the introduction of new courses.
Mean		.56	.65			

* Item Discriminating Power

TABLE 19

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 13

Hypothesis: The teacher who understands the ideas of modern education and accepts them is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P.*, Category	Answer	Form C Number	Item
19	B	.50	.64	D	13	The best training for adult living is to be found in good intellectual discipline.
84	B	.62	.53	A	18	A pupil's school experiences are in many respects unlike any other pupil's school experiences.
14	A	.75	.65	A	38	In planning a unit of work my first step after the area to be covered is determined would be to explore the area with my students.
32	B	.76	.63	D	55	I would use materials other than the text only to supplement the text.
78	A	.86	.60	D	62	The modern day attacks on the school present no evidence of need for curriculum change.
51	B	.54	.38	A	72	Modern schools need to be made more experimental.
Mean		.67	.57			

* Item Discriminating Power

TABLE 20

STATISTICS ON ITEMS SELECTED FOR FORM C
FROM FORMS A AND B IN CATEGORY 14

Hypothesis: The teacher who tends to accept a non-authoritarian, experience conception of education is more ready for curriculum change.

Original Number	Form Letter	Item Difficulty	I.D.P*. Category	Answer	Form C Number	Item
74	A	.62	.74	D	14	I should carefully analyze a pupil's errors of judgment for him.
31	B	.66	.76	A	16	Our pupils know what many of their real educational needs are.
71	B	.65	.70	D	40	Democratic understanding is best achieved by a close study of the ideals of western culture.
25	A	.72	.69	D	56	It is undemocratic to evaluate pupils in the same class by different standards.
21	B	.80	.57	A	63	A pupil's experience in a guidance interview is more important than what he is told.
67	A	.86	.65	D	71	Continuous rethinking and modification of purposes and objectives hinders educational progress.
Mean		.72	.68			

* Item Discriminating Power

APPENDIX B

FORM C AND THE FORMULAS FOR t-RATIOS OF THE DIFFERENCES OF THE MEANS

CURRICULUM RESEARCH STUDY

Please answer the following questions by placing a check mark in the appropriate blank.

	Yes	No
1. Have you worked in this school system 5 years or more?	___	___
2. Have you taught in another community?	___	___
3. Were you educated in the community in which you now teach?	___	___
4. Do you own your own home?	___	___
5. Are you active in community affairs?	___	___
6. Do you subscribe to a professional magazine in your field?	___	___
7. Do you have any special abilities or interests outside of teaching?	___	___
8. Have you taken some kind of in-service training in the past 2 years?	___	___
9. Would you expect some resistance to intelligent attempts to change the curriculum?	___	___
10. Do you plan to remain in this school for the next few years?	___	___
11. Have you had more than four years of formal training beyond high school?	___	___

12. What is the state of your health? (a) physical ___ good ___ fair ___ poor
(b) mental ___ good ___ fair ___ poor

Directions: The following statements about society, education and your school present a variety of points of view and attitudes. Answers cannot be said to be "right" or "wrong" because the situation and your point of view determine the answer. Please express your point of view with regard to each statement. If you agree with the whole statement more than you disagree with it mark it A in the space provided at the left of the statement. If you disagree with the whole statement more than you agree with it mark it D in the space provided at the left of the statement. If you are uncertain about the whole statement mark it U in the space provided at the left of the statement. Please mark every statement.

Agree more than disagree A | Uncertain U | Disagree more than agree D

___ 1. The intelligence of the people should be relied upon for governing themselves.
___ 2. The best form of democratic decision-making is by majority vote.
___ 3. When a pupil fails to do his assigned work he should be penalized.
___ 4. The teachers in our school take a definite interest in the good practices of their colleagues.
___ 5. When a teacher has an instructional problem he will get good help from our supervisor.
___ 6. Our principal has a thankless job.
___ 7. If we brought in an educator from outside our community to work with us on the curriculum we would get a better perspective on our problems.
___ 8. It is characteristic of educational problems that if you try to solve one you find two more and end up by doing little about any of them.
___ 9. Being a teacher is a social handicap.
___ 10. Our central office staff is not aware of what really goes on in the schools.
___ 11. It is not practical for the average teacher in our school to develop contacts with the home and family of pupils.
___ 12. In a curriculum improvement program a specialist should devote a good deal of time to demonstration teaching.
___ 13. The best training for adult living is to be found in good intellectual discipline.
___ 14. I should carefully analyze a pupil's errors of judgment for him.
___ 15. Every evidence of Communism in American public office should be ruthlessly tracked down.
___ 16. Our pupils know what many of their real educational needs are.
___ 17. Individuals lose their effectiveness when they work in groups having 10 or 12 members.
___ 18. A pupil's school experiences are in many respects unlike any other pupil's school experiences.
___ 19. The modern pupil does not have enough respect for his teacher.
___ 20. Our teachers should be given intelligently worked out solutions to their curriculum problems.

___ 21. Most of our teachers are unprofessional in their behavior toward their fellow teachers.
___ 22. Most community indifference to education is really a lack of parental concern for their children.
___ 23. My supervisor is realistic when it comes to an actual instructional problem.
___ 24. Our central office staff is formal in its way of working with teachers.
___ 25. When I present an idea to my principal it is sometimes forgotten in the rush of administrative duties.
___ 26. The leadership provided by the educational profession is rather ineffective.
___ 27. School-wide curriculum improvement programs employing outside specialists are apt to cause trouble in a school.
___ 28. Teachers should try intelligently to improve a bad classroom situation before they find out who is to blame.
___ 29. Teachers need to have new methods and techniques explained to them in every detail.
___ 30. The most vital question the teaching profession faces is the question of low salaries.
___ 31. I would take a personal problem to my principal.
___ 32. The central office keeps us aware of what is going on in our schools.
___ 33. My supervisor makes it easier for me to share my problems with other teachers.
___ 34. My position as a teacher in our community makes close community relationships difficult.
___ 35. It would be very difficult to organize the teachers in our school for a concerted program of action.
___ 36. Our school committees are most effective when a strong leader controls the committee.
___ 37. Many of our pupils have been spoiled by too much attention.
___ 38. In planning a unit of work my first step after the area to be covered is determined would be to explore the area with my students.
___ 39. To be a good group leader in our school a person must be able to control the people in the group.
___ 40. Democratic understanding is best achieved by a close study of the ideals of western culture.
___ 41. The activities of such different groups as schools, business and government are quite interdependent.
___ 42. There is too much emphasis in the present day on curriculum change.
___ 43. Society operates pretty much on a "dog-eat-dog" basis.
___ 44. A difficulty with group work is that the able people get outvoted by the average.
___ 45. The main reason that instruction should be individualized is because pupils differ in intelligence.
___ 46. There are numerous faculty members who will bog down any discussion of school matters.
___ 47. It is profitable for me to take instructional problems to my supervisor.
___ 48. One big trouble with our principal's job is that he is "caught" between the superintendent on one side and the teachers on the other.

___ 49. Curriculum specialists from outside the school are vague when it comes to solving an actual instructional problem.
___ 50. As far as our school is concerned there is wisdom in the adage "let well enough alone".
___ 51. Teachers get about the same recognition for their achievements as other people do.
___ 52. Our central office staff is anxious to have teacher's ideas for improving instruction.
___ 53. The people of our community do not hold their teachers in high regard.

___ 54. In a curriculum improvement program regular lectures on curriculum and curriculum theory should be given by a consultant.
___ 55. I would use materials other than the text only to supplement the text.

___ 56. It is undemocratic to evaluate pupils in the same class by different standards.
___ 57. Discipline problems are best handled by locating the culprit and properly punishing him.
___ 58. The professional literature in education is of poor quality.

___ 59. I am not usually consulted in policy decisions of our school system.

___ 60. There is equal opportunity for young people to grow and develop in our community.
___ 61. It is essential in a curriculum improvement program that the teachers thoroughly study a good text on curriculum.
___ 62. The modern day attacks on the schools present no evidence of need for curriculum change.
___ 63. A pupil's experience in a guidance interview is more important than what he is told.
___ 64. The United Nations should have whole-hearted American support.

___ 65. As long as I am a member of a group I am responsible to abide by the decisions the group makes.
___ 66. Pupils are apt to break school rules because they are not concerned about what others think.
___ 67. The teachers in our school are highly competitive when it comes to advancement.
___ 68. My supervisor leaves me with two or more new problems where I originally had just one.
___ 69. When our principal is making decisions that might affect the teachers, the teachers tell him how they feel about the matter.
___ 70. About the only way to help our teachers with their problems is to demonstrate their solutions in the classroom.
___ 71. Continuous rethinking and modification of purposes and objectives hinders educational progress.
___ 72. Modern schools need to be made more experimental.

___ 73. The goal of curriculum improvement efforts is the revision of old courses or the introduction of new courses.
___ 74. Our school could deal successfully with any pressure groups existing in our community.
___ 75. Our school problems stem primarily from a poor school philosophy.

___ 76. Teaching cannot really be called a profession in the sense that law and medicine are professions.

___77.Preservice teacher training has improved in recent years.

___78.I would like to serve on a committee with my principal.

___79.My supervisor could give the best service by just making materials and teaching aids available.

___80.The teachers in my school are among my closest friends.

___81.Pupils who are unable to participate in planning class activities are probably insecure in the planning situation.

___82.As a member of a small group I feel a responsibility to participate whether I am interested in the matter or not.

___83.Private enterprise is the most essential feature of the American way of life.

___84.School problems are usually caused by faulty administration.

Thank you for participating. If you have any comments about the form or the statements I would very much like to have them. This research can employ your criticisms to great advantage.

Criticisms:

FORMULAS FOR COMPUTING t-RATIOS OF THE DIFFERENCES OF MEANS

The formula[1] used to compute the values of t for samples larger than 25 was:

$$t = \frac{M_1 - M_2}{\sigma_{D_M}}$$

where M_1 = the mean of the sample 1,

M_2 = the mean of the sample 2,

and σ_{D_M} = standard error of the difference of the mean which was computed from $\sigma_{D_M} = \sqrt{\frac{\sigma_1^2}{N_1 - 1} + \frac{\sigma_2^2}{N_2 - 1}}$

Where the samples were smaller than 25 the formula[2] used was:

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\Sigma x_1^2 + \Sigma x_2^2}{N_1 + N_2 - 2} \cdot \frac{N_1 + N_2}{N_1 N_2}}}$$

where M_1 = the mean of sample 1,

M_2 = the mean of sample 2,

Σx_1^2 = sum of the squares of the deviations of the scores of sample 1 from the mean of sample 1,

Σx_2^2 = sum of the squares of the deviations of the scores of sample 2 from the mean of sample 2,

N_1 = the number of scores in sample 1,

and N_2 = the number of scores in sample 2.

---

[1] J. P. Guilford, op. cit., p. 214.

[2] Ibid., p. 228.

APPENDIX C

INSTRUCTION SHEET FOR GROUP A

The Central Committee has examined the questionnaire and is of the opinion that its results will be valuable enough to justify our time in filling it out.

The accompanying form is designed to measure a faculty's readiness for curriculum change. There are two sections to the form, the first consists of the first page and the second of the next four pages.

The statements in the second part are of the opinionnaire type. You will find that some of them seem quite general. They are intended to be. The answer you should give is based on whether you agree more than you disagree or disagree more than you agree.

All questions, for your purposes, refer to _____ as a unit and not as a part of the county school system. This concerns such questions as 5, 10, 23, 24, 33, 47, 48, 52, 68 and 79. Questions concerning outside resource people refer to people other than the laboratory school staff. Questions 7, 49.

In asking you to fill out this form I am not concerned with you as individuals. You do not put your name on the form. I am concerned with you as a whole; as the _____ school faculty. As individuals you are in no way identifiable.

I hope that the results of your participation in this will be helpful to you as a staff. The results of the analysis will be available to you. In order that this analysis be helpful to both the _____ faculty and myself I hope all of you will fill out the form.

I thank you very much for participating in this study and I will try to make your participation as valuable to you as I can.

James K. Duncan

APPENDIX D

FORM CIM AND ITS STATISTICAL TREATMENT

CIM

Directions:

The following statements about society, education, and your school present a variety of points of view and attitudes. Answers cannot be said to be right or wrong because the situation and your point of view determine the answer. Please express your point of view with regard to each statement.

If you agree with the whole statement more than you disagree with it mark it A in the space provided at the left of the statement. If you disagree more than you agree with it mark it D in the space provided at the left of the statement. If you are uncertain about the whole statement mark it U in the space provided at the left of the statement. Please mark every statement.

Agree more than disagree Uncertain Disagree more than agree

A U D

___ 1. The intelligence of the people should be relied upon for governing themselves.

___ 2. The best form of democratic decision making is by majority vote.

___ 3. It is characteristic of educational problems that if you try to solve one you find two more and end up by doing little about any of them.

___ 4. In a curriculum improvement program a specialist should devote a good deal of time to demonstration teaching.

___ 5. Every evidence of Communism in American public office should be ruthlessly tracked down.

___ 6. Individuals lose their effectiveness when they work in groups having 10 or 12 members.

___ 7. Our teachers should be given intelligently worked out solutions to their curriculum problems.

___ 8. Teachers should try intelligently to improve a bad classroom situation before they find out who is to blame.

___ 9. Our school committees are most effective when a strong leader controls the committee.

___ 10. The activities of such different groups as schools, business and government are quite interdependent.

___ 11. Society operates pretty much on a "dog-eat-dog" basis.

___ 12. A difficulty with group work is that the able people get outvoted by the average.

___ 13. The main reason that instruction should be individualized is because pupils differ in intelligence.

___ 14. As far as our school is concerned there is wisdom in the adage "let well enough alone".

___ 15. In a curriculum improvement program regular lectures on curriculum and curriculum theory should be given by a consultant.

___ 16. Discipline problems are best handled by locating the culprit and properly punishing him.

___ 17. To be a good group leader in our school a person must be able to control the people in the group.

___ 18. The United Nations should have whole-hearted American support.

___ 19. It is essential in a curriculum improvement program that the teachers thoroughly study a good text on curriculum.

___ 20. As long as I am a member of a group I am responsible to abide by the decisions the group makes.

___ 21. The goal of curriculum improvement efforts is the revision of old courses or the introduction of new courses.

___ 22. Private enterprise is the most essential feature of the American way of life.

___ 23. School problems are usually caused by faulty administration.

___ 24. As a member of a small group I feel a responsibility to participate whether I am interested in the matter or not.

TABLE 21

DISTRIBUTION AND STATISTICS OF ALL SCORES ON CIM

i	f	
47-48	1	Mean = 29.46
45-46	2	
43-44	1	
41-42	7	Range = 32
39-40	3	
37-38	13	
35-36	14	σ = 6.414
33-34	12	
31-32	26	
29-30	15	σ_{rr} = .479
27-28	22	
25-26	22	
23-24	17	σ_{rr}^2 = .230
21-22	12	
19-20	7	
17-18	5	
15-16	1	
	180	

RELIABILITY OF CIM

The formula used to compute the reliability[1] was

$$r = \frac{n}{n-1}\left[1 - \frac{\Sigma a_i^2 p_i q_i + \Sigma b_i^2 p_i' q_i' - 2\Sigma a_i b_i p_i p_i'}{\sigma_t^2}\right]$$

where r = reliability,

n = number of items,

a_i = weight given a correct response, (2), on item i,

b_i = weight given an uncertain response, (1), on item i,

p_i = proportion of correct responses on item i,

q_i = 1 - p_i,

p_i' = proportion of uncertain responses on item i,

q_i' = 1 - p_i',

and σ_t^2 = total variance of scores.

The computation was:

$$r = \frac{24}{23}\left[1 - \frac{19.6916 + 3.1937 - 7.4972}{41.1536}\right]$$

$$r = .653$$

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[1] P. L. Dressel, "Some Remarks on the Kuder-Richardson Reliability Coefficient," Psychometrika, V (December, 1939), p. 309.

APPENDIX D

TABLE 22

STATISTICS ON DISTRIBUTIONS OF CIM SCORES BY GROUPS

Group	Mean	σ	Σx^2	σ_m^2	N
A	37.63	4.986	472.42	. . .	19
B	31.12	5.444	503.76	. . .	17
C	30.65	4.402	503.89	.775	26
D	29.57	6.314	837.14	. . .	21
E	27.55	5.424	1500.63	.588	51
F	27.12	5.716	1045.50	1.054	32
G	25.86	5.878	483.71	. . .	14
Active	32.29	6.141	. . . .	.580	66
Inactive	27.42	5.522	. . . .	.318	97
Secondary	29.82	5.714	. . . .	.367	91
Elementary	27.06	5.282	. . . .	.498	57
Elem. Inactive	26.88	. . .	. . . .	. . .	24
Sec. Inactive	28.15	. . .	. . . .	. . .	27

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James Kelman Duncan was born in Barre, Vermont on August 1, 1917. He received his early elementary education in the elementary schools of Barre, Vermont and graduated from Montpelier High School, Montpelier, Vermont. In January, 1943 he received the Bachelor of Science degree in Mechanical Engineering from the University of Vermont. In March, 1943 Mr. Duncan entered the United States Navy and served in the submarine service. He was released from active duty with the rank of Lieutenant in July, 1946.

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